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THE
HOSPITAL GAZETTE.

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EDITED BY

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LECTURES.

VOLUNTARY DISLOCATION OF THE HIP AND OTHER JOINTS.

Case of Charles H. Warren, the Acrobat and Contortionist. Before the Class of Medical Students and Physicians assembled at Bellevue Hospital Dec. 18th, 1878.

BY

FRANK H. HAMILTON, A.B. A.M. M.D.

Reported for THE HOSPITAL GAZETTE.

GENTLEMEN:—I am permitted to bring before you to-day a very interesting and unusual case. Mr. Charles H. Warren, Warren is his professional name the professional acrobat and contortionist, who has among his class an almost unequalled celebrity. My purpose in bringing him before you, however, is not to demonstrate to you his remarkable muscular strength and development, or his wonderful feats of contortion, but to call your attention to his ability to dislocate certain joints of his body by muscular action.

Mr. Warren is now 30 or 31 years of age, having been born in Schuylar Co., New York, in 1848. His parents were healthy, and neither of the parents nor either of their five children, except Charles, possessed his peculiar muscular development or power of dislocating the bones. In his own case it was first noticed in his infancy, soon after he began to run about, that he would suddenly fall while running across the floor; and it was soon ascertained that he had been tripped up by the sudden displacement of his hip-joint, but the fall would restore it to place and he would get up and again run about. This is his own account of his case at this early period of life, and it may or may not be correct, as I am not informed that any medical man was ever consulted. His statement, however, finds a confirmation in the fact that an infant son of Mr. Warren, now dead, had the same peculiarity. He has also a little daughter, now living, in whom the same phenomenon, so far as the accidental dislocation of the hip-joint is concerned, is manifested. He has had no other children, and his wife is a healthy and well formed woman. In his own case this tendency to accidental and involuntary dislocation of the hip-joint only lasted two or three years after he began to run about. Since then it only occurs by an act of volition, and under the powerful contraction of the muscles. It is not even apt to occur during his performance of gymnastic and contortion feats.

Speaking of the wife and children of Mr. Warren, I think it proper to say to you that they are dependent upon his exhibitions for their support; and that while he finds plenty of professional occupation in the summer, he endeavors to add to their comfort in winter by exhibiting himself in medical colleges and by serving as a "model" in the studios of sculptors; and while my gladiator is exhibiting himself in

this arena he is, no doubt, thinking of the young "barbarian" at home. At the close of the lecture you can give him what you please. I know he will be grateful to you for whatever you may give.

As a boy, Warren ran about as other children and at five years went to school, but when eight years of age he left home and joined a travelling circus. At eighteen he began to work at the trade of car making, but soon returned to the circus.

I have called your attention to these historical details, because they seem to illustrate *first*;—that Warren had a congenital relaxation of the ligaments and capsules of the joints; and *second*;—that his prodigious muscular development was the result of early and long continued muscular exercise; while the daily practice of contortion maintained the ligaments and capsules in their original abnormal condition. There is, therefore, in this case a combination of anatomical conditions rarely met with, namely:—a relaxation of one class of structures or tissues, and an unusual power of action and contraction in another. We often see persons who have congenital or acquired pathological relaxation of the articular ligaments, but this is associated in most cases with muscular weakness. So also there are frequent examples of great muscular power, the result of exercise, but the joints are compact also. None of them have the power of dislocating their bones by muscular action. Mr. Warren informs me that Walter Wentworth, a professional contortionist, now about forty-five years of age, and weighing perhaps 115 lbs, is probably more flexible than himself, but possesses rather less muscular power, yet he is very strong. John Santiago de Gibinois and George Mankin, are probably as strong as himself; Lister, of the New York circus, now dead, was probably superior to any one who has ever lived as a contortionist. The latter died only two or three years ago, at the age of forty-eight, and practiced successfully his profession to the last days of his life. Yet not one of these men had the power of dislocating their bones which Warren possesses. It is clear therefore that we must ascribe Warren's peculiar power in this respect to a congenital abnormality—namely; a great capacity and lengthening of the capsular structures, united with later muscular development from exercise.

Mr. Warren, is, as you see, rather above the average height, slender and well proportioned; and there is nothing in his form or appearance, as he now stands before you, which would indicate any remarkable physical capacity of any kind. He is only what might be called a well formed handsome man. He is in perfect health. He will now show you his power to displace the bones at their articular connections.

Inferior Maxilla—*Partial dislocation forwards*. This is accomplished probably by the action of the external pterygoid muscles. There is nothing worthy of special note in this, inasmuch as the ability to displace the condyle to this extent is not very unusual. The condyle resumes its place the moment the action of the muscles cease.

Clavicle—*No dislocation*. He has no power to displace the clavicle at either articulation.

Scapula—*Displacement of Lower Angle*. This displacement is very remarkable, the lower angle of the

scapula being lifted upwards and outwards until it lies nearly on a level with the top of the shoulder, and is made to project far backwards. We are enabled now to study carefully the mechanism of this displacement, an example of which is every now and then reported in the journals as a "dislocation" of the scapula. It has been ascribed variously to a partial paralysis of the latissimus dorsi, in consequence of which the somewhat feeble hold which it has upon the inferior angle of the scapula is relaxed, and it is unable to retain the angle in its place;—to a detachment of this muscle from the angle in consequence of some violence;—to paralysis of the serratus major anticus;—and by one writer, Gross, to paralysis of the rhomboid muscles.

In the case of Mr. Warren, it is apparent that it is accomplished solely by the action of the rhomboideus major, which muscle he has the ability to call into vigorous activity, while he suspends the action of the rhomboideus minor, the serratus magnus, the latissimus dorsi and other muscles. We can even trace the fibres of the rhomboideus major as it lies in a state of contraction underneath the trapezius. When this muscle ceases to contract, the angle falls to its place spontaneously.

It is probable that as we see it presented occasionally in other persons, it is due most often to a paralysis of the serratus major anticus; possibly sometimes to a loss of power in the latissimus, and even occasionally to a disruption of the attachment of the latissimus; but it is impossible that it should be due to a paralysis of either of the rhomboids as has been suggested by Dr. Gross. Of course we exclude from consideration, now, all those examples of scapular projections which are due to spinal distortions, and which are purely mechanical, and have therefore nothing in common with this case.

Head of the Humerus—Subglenoid subluxation. By the action, apparently, of the latissimus dorsi, aided, perhaps, by the lower fibres of the pectoralis major, Mr. Warren displaces the head of the humerus downwards, until it rests upon the lower margin of the glenoid cavity, causing a very marked depression under the acromion process, and increasing the length of the arm, as measured from this process, about one inch. He soon becomes weary of holding it in the position, and then when he relaxes the muscles, this head rises to its socket without noise or sensation. His ability to perform this feat, is equal in the two arms.

Elbow-joint.—The elbow-joint admits of a slight increase of lateral motion, above what is usual, and the backward movement, or extension, is greater than is usual with adults; but he has no power to cause either a luxation or a subluxation at this joint.

Wrist-joint—Backward, forward and lateral subluxation. By the action of the muscles alone he displaces the carpal bones backwards or forwards, causing in each case a partial luxation. He cannot, however, cause a lateral luxation without first grasping the wrist with the opposite hand—the wrist being grasped firmly by its radial and ulnar margins—when, by the action of the muscles, the carpus is thrown fully half an inch to either side. When the carpus is thrown to the radial side, the hand falls to the ulnar side; and the reverse happens when the carpus is thrown to the ulnar side. When the

muscles are relaxed, the carpus resumes its position spontaneously, and without sound or sensation.

Phalangeal articulations—subluxations. He is able to subluxate all the articulations of his fingers, including the thumb. The subluxations backwards and forwards are effected by muscular action, but the lateral luxation only by the help of the other hand.

Hip—Complete Luxation upon the Dorsum Ilii. It is in the hip, gentlemen, that the greatest scientific and surgical interest of this case centers. After a careful study of the phenomena accompanying certain motions of the hip-joint in the person of Warren, I have felt compelled to accept of the theory that he causes a true and complete luxation upon the dorsum of the ilium.

You will notice that while the patient is standing nude, his form is perfect, except that both feet turn out a little more than is usual with others. Observe the situation of the trochanter major, in this right leg, which he will presently dislocate. With a moderate effort of the muscles the head of the bone seems to move in its socket, and to be carried upwards and backwards upon the dorsum ilii. The change of position occurs suddenly and is accompanied with a sensation to the hand as of a bone slipping suddenly into its socket; a sort of heavy thud. He stands now upon his left leg, the right being lifted from the floor, the thigh a little flexed upon the body, the leg flexed upon the thigh, with the toes turned a little in. He says, that knowing that it ought to turn in a little more to represent the appearance which the limb usually presents in this dislocation, he sometimes when exhibiting himself, turns it in more; but this is the position, only slightly turned in, which it naturally takes. Looking for the trochanter major, we find that it has been carried upwards and backwards full two inches. The head of the bone we are unable to find. It is very difficult to make a comparative measurement of the two limbs when one is thus displaced, but so far as I can determine, the right limb is shortened at least one inch, probably more.

Mr. Warren then repeated the dislocation several times; the bone always returning quietly to its place after each displacement, without any sound or sensation like that which accompanied its displacement. The same experiment was made with the opposite thigh, and with the same results. Finally Mr. Warren was laid upon the floor, upon a blanket, and he produced the dislocations equally, but apparently with little more muscular effort.

There seems to be, said Dr. Hamilton, but two possible explanations of the phenomena presented in the case of the femur:—either they are produced by the trochanter rotating outwards, and pressing firmly against the anterior margin of the gluteus maximus, until suddenly it becomes disengaged and slips under this muscle, while the head of the bone remains in its socket; or, there is a veritable dislocation of the head of the bone.

In favor of the first supposition it may be stated again, that when the displacement in the case of Mr. Warren has occurred, the trochanter major is removed backwards and upwards full two inches; it remains as prominent as it was before; and the head cannot be found. While in the usual disloca-

tion upon the dorsum, the trochanter turns forwards, and is less prominent than it was before; and the head of the bone may usually be felt when there is no swelling. How then could this be a dislocation? Plainly only by supposing that there was such an abnormality of the joint—an almost total absence of the rim of the acetabulum in that direction, and perhaps such a broadening of the head, and shortening of the neck, as would permit the head, neck and trochanter to be drawn up and back by the gluteal muscles, without changing the relations of the line of their common axis to the outer face of the pelvis; that is,—without any inward tilting of the trochanter. This would assume the existence of anatomical conditions that are not proven, but only deemed possible.



If the limb is actually shortened, however, there must be a dislocation, and we think it is; but inasmuch as the accuracy of any measurements under these circumstances might be fairly questioned, we shall for the moment dismiss this argument also.

There now remains only this important fact, that while the trochanter major is carried back, the toes are turned in a little; they are no longer inclined

very much outward as they were in Mr Warren before the displacement was made—they do not point forwards, but actually a little in. So that in fact there is about as much inward rotation of the foot as we could have required to indicate an outward dislocation. But it is plainly impossible that the head of the femur should remain in its socket, while the trochanter rotated outwards two inches, and the knee, foot and toes not accompany this outward rotation. Certainly it is impossible that the whole lower portion of the limb should rotate inwards, as it actually does. This fact excludes from my mind the possibility that there is here only a rotation of the trochanter outwards, and a muscular displacement.

Whatever difficulties there may be in the way of supposing that this is a dislocation, they are not insuperable if we assume the existence of some abnormality in the construction of the joint and of the neck. It is possible even that what we believe to be the trochanter moved back is actually the head of the bone, and that it is the trochanter which is lost; for the change of position occurs so suddenly that neither by the sight, nor with the hands placed upon the trochanter can we follow the change of position. We only discover, after a sudden commotion, that there is no longer a projection where the trochanter was felt, and which we have marked with a pencil in order not to be deceived; and that there is a projection which resembles it precisely, so far as we can determine, two inches farther back and upwards. Possibly, I say, this new projection is really the head, somewhat changed from its normal form; but I do not think so. Perhaps nothing but an autopsy can determine this and other points connected with the case.

Up to this time I know of but eight recorded examples of voluntary dislocations of the hip-joint, and not one of these supposed examples, has, so far as I can learn, been confirmed by an autopsy.

The first case was reported to Sir Astley Cooper, by Mr. Brindley, of Wink Hill. The second was described to Samuel Cooper by a gentleman, and is referred to in his book entitled "First Lines." Dr. Gibson in his "Surgery," refers to a case reported to him by Dr. Lewis of North Carolina. Dr. Bigelow, of Boston, has seen two cases, which he regarded as subluxations; Dr. Moore, of Rochester, has reported one, and in the fifth edition of my work on Fractures and dislocations I have added three more, one of which I had personally examined. This case makes therefore the tenth. And I feel authorized in saying that unless there was a mistake in regard to all the others, this is a veritable case of voluntary dislocation; for the evidences are more conclusive than in the only other case which I have ever seen, and than in any of the cases hitherto reported.

Knee-joint—Rotation and Subluxation.—Mr. Warren has no power to displace the knee-joint by muscular action; but seizing the leg while it is flexed, he can rotate the tibia laterally very freely, and cause the head of the tibia to project beyond the line of the articulation half an inch or more.

Patella.—He has no power to displace this bone.

Ankle-joint.—With his hands he can give to this joint a very wide lateral rotation.

Tarsal joint.—By the aid of his hands he can imitate the extremes of *varus* and *valgus*.

Phalanges of the Toes.—Are loose, but not so loose as the phalanges of the fingers.

Having completed the series of interesting experiments upon his joints, Mr. Warren was permitted to exhibit some of his wonderful feats of contortion and muscular power; and also of expansion and contraction of the chest, the extreme limits of expansion and contraction being about twelve inches.

A CLINICAL LECTURE ON AORTIC ANEURISM AND TWO CASES OF HEART DISEASE.

Delivered at the College of Physicians and Surgeons, New York.

ALONZO CLARK, M.D., LL.D.

Professor of the Theory and Practice of Medicine and of Clinical Medicine.

Reprinted from *The Hospital Gazette*.

CASE I.—This man received a serious injury on the 19th of last October. He was carrying a large hoghead on his shoulders, in a brewery, when his employer, without any provocation whatever, pushed him violently forwards, hurling him with the hoghead on his back against a heavy cask standing in front of him. Several of his ribs were broken by the blow and he was confined to his bed for three weeks. His health had been perfectly good up to the time of the accident, and he had never had any previous trouble with his heart. He has not been able to do any work since his injury.

When we come to examine the heart and chest physically, you notice at once (1) that there is very distinct pulsation and (2) that it is not in its proper place, but is limited to a small space on the right chest. This spot is very tender to the touch. I place my finger-tip upon it and you can see how it falls and rises with each pulsation. There is no murmur connected with the sounds of the heart and that organ beats in its proper position—the apex is indeed somewhat pushed to the left, but there is certainly no cardiac disease.

The pulsation in the right chest is in the third intercostal space and extends to a spot three inches to the right of the median line. There is no murmur to be heard over this point of pulsation, but there is dulness to the right of the sternum extending downwards three inches from the top of the third rib.

What is this pulsation and dulness due to? There is no pulsation or dulness on the right side, at the apex level of the heart. There is no crepitus to be had by manipulating the ribs, no displacement of the ribs, and no motion upon pressure.

The case is manifestly one of aneurism, and this aneurism has occurred at the point where the aorta begins to ascend and is doubled down towards the right. The heart is crowded slightly to the left by this aneurism.

It is difficult to settle upon the cause of this aneurism. The man says that he was perfectly well and free from all heart disease up to the time when he received the injury, but this is not proof positive by any means that there was not a pre-existing

atheroma of the walls of the aorta. All we can say in such a case is that the aneurism was due either to previously existing atheroma which was greatly intensified by the injury received, or, on the other hand, that the injury itself, severely wounding the coats of the aorta, was the sole cause of all the mischief.

The patient's breathing has not as yet been affected by pressure of the aneurismal sac upon the bronchi or trachea, and the tumor is not high enough to drag upon the recurrent laryngeal nerve. The aneurism must embrace the arch of the aorta as it is confined between the top of the third rib and a spot three inches below it. There are none of the ordinary signs of aneurism here except pulsation and dulness. The lung has been displaced over the center of the aneurism, but the respiration can be distinctly heard down to the very bottom of the lung-substance—there is no effused serum in the chest to displace the lung. The patient scarcely breathes at all with his left side. This is on account of the pain which breathing brings on there.

I have nothing to recommend, no treatment to advise except that which looks to the relief of the pain and the moderation of exercise. I shall tell the assistant to give him an opium plaster to put on his chest to meet the first indication.

There is, as you notice, some pulsation in the epigastrium, but this is only the ordinary pulsation of the heart communicated through the liver and diaphragm.

The man points to some cicatrices on his leg from which he tells me that blood issues occasionally. These certainly have no connection with the circulatory lesion unless as indicative of an atheromatous condition of all the arteries of the body.

There is one other possible explanation of the presence of pulsation and dulness in the right chest which I forgot to mention and discuss in its proper place, and that is the possibility of a thoracic abscess receiving and transmitting pulsation from the heart, but this is not at all likely to be the case here. The man has no hectic and no night sweats, and all the prominent symptoms point in the other direction.

CASE II. This man complains of a lancinating pain in breathing, which starts from his heart. He says that he can lie on either side, but that he cannot sleep when he is lying on his left side. Running up stairs always brings on palpitation of the heart. He says he can hear his heart beating. This last is not a very serious symptom certainly, since everyone can hear his heart beat by simply putting the palm of his hand under his ear when he is lying down, and listening.

The patient has never had articular rheumatism, or scarlatina. The pains first appeared only two weeks ago, but within the past few days have been so severe as to interfere with his business. He has lost flesh, but eats heartily. There is considerable pulsation in the region below the heart. There is no pulsation over the præcordia. The left side of the chest is much fuller than the right. Listening attentively, I can distinguish a murmur both at apex and base, accompanying the first sound of the heart. The tone of the murmur at the apex is sharper than of that at the base. Putting these things together, I

am led to conjecture that there is regurgitation at the mitral, and stenosis of the aortic valve. The size of the heart is not greatly increased—it is enlarged, but the enlargement is not extreme. The apex beat is below, and to the outside of the left nipple.

The chest is narrow—the apex beats a little more than four inches to the left of the median line.

The man is a carpenter by trade. He says the pain has come on within the last few weeks, but I am very certain that the heart lesions have been of much longer development.

The pain, he goes on to say, is more felt when he is at rest, than when he is working, or walking. He feels it in both sides, but not in his left shoulder, or arm.

My advice to him will be to take things very moderately in future. He must take his time in getting up stairs, and must walk slowly, and do no heavy work. He uses the brace and bit a great deal, and thinks that this may have had something to do with the origin of the trouble, but I question it. Furthermore, he must never drink intoxicating liquors, and must eat moderately—never fill his stomach full. He says that the pain is always aggravated by the presence of a hearty meal in his stomach. The last word of advice I shall give him is to always eat slowly.

CASE III. This little fellow who is seven years old, has never had rheumatism, or scarlet fever, and has always been perfectly well until some five months ago. His face and skin are very pale, and his father tells me that this has always been the case. It pains him now to run up stairs, and his breath comes very short when he reaches the top of the flight. He always sleeps on his right side. When he sleeps on the left side, he has pains, as if from the pricking of needles. He always sleeps with two pillows under his head.

You notice that there is considerable motion in the chest when the heart beats. This motion is seen as distinctly on the right as on the left side. The agitated space is full eight inches in width, and extends a full inch outside of the left nipple, and as far as the right nipple on the right side. Together with this movement, I can detect, upon auscultation, a pretty loud regurgitant murmur, at the mitral valve. There is also a murmur of aortic stenosis at the base of the heart. The mitral murmur is conveyed all the distance across to the right of the right nipple. The aortic murmur on the other hand is limited, and only heard over a small space. The mitral murmur is heard as distinctly under the left clavicle as in front. It is also heard under the right clavicle, but not so distinctly. I feel the apex beat almost directly under the axilla.

The dulness, upon percussion, extends to within less than one inch of the right nipple. There is no distinct murmur on the right side. The dulness extends seven inches across the chest in a straight line.

It is a matter of no little interest that at the late College examinations in this city the University only rejected 8 candidates out of 213, whereas the College of Physicians and Surgeons rejected 33 out of 127. Which diploma is the more valuable?

ORIGINAL ARTICLES.

A HITHERTO UNDESCRIBED LESION AS A CAUSE OF EPISTAXIS, WITH FOUR CASES.

JAMES L. LITTLE, M.D., N. Y.

Prof. of Surgery, Medical Department, State University of New York; Lecturer on Operative Surgery, Albany Medical College; Surgeon, Albany, N. Y.

CASE I. About twelve years ago I was called out at midnight to see a gentleman about 40 years of age suffering from a severe epistaxis.—The late Dr. Peter Clark of this city, the attending physician, had plugged the anterior nares, but had failed to arrest the hemorrhage permanently, the bleeding recurring as soon as the plug was removed. I found the patient pale and showing signs of having lost a considerable quantity of blood. He was ready to have the posterior nares plugged, as Dr. Clark had considered this as the only way in which the bleeding could be permanently arrested.

The statement that but little blood ran down the throat from the posterior nares, and also that the plug in the anterior nares had arrested the hemorrhage for the time, caused me to inspect the interior of the nose. Wiping out the cavity with a piece of cotton I found to my surprise that the hemorrhage was from a point on the septum, about half an inch above the columna, and the cartilage at this spot seemed to be slightly eroded.

Touching this bleeding point with the muriated tincture of iron on a camels hair brush, the hemorrhage was at once arrested and did not recur.

CASE II. November 6th, 1872, Mr. L. aged 30, called at my office complaining that he had had two severe attacks of epistaxis during the past 24 hours. The next day he called again stating that during the night his nose had again bled profusely. He was pale and his face showed that he had lost considerable blood. The hemorrhage had been controlled by the application of ice, and snuffing cold water up the nostrils. As the patient felt somewhat exhausted I ordered the tinct. ferri mur. I also advised him to send for me during an attack. I did not think at this time, to examine the interior of the nose. Early the next morning, Nov. 8th, he called at my office, with his nose bleeding freely.

On examination I found a small ulcer on the septum about half an inch from the edge of the nostril and very near the anterior margin of the cartilage. The blood could be seen flowing freely from a small point, and was arterial in color. Upon touching the spot with the point of a stick of nitrate of silver the bleeding at once ceased. A second application was made the following day and the patient had no further trouble from the hemorrhage. The erosion healed in a few days under the scab formed by the application.

CASE III.—Miss L. aged 35, called me on Mar. 12, 1878. I found the patient just recovering from an attack of syncope following epistaxis. The bleeding had almost ceased and I plugged the anterior nares and advised her to call at my office, a short distance from her house, the next morning, when I would examine her nose. The next day I obtained the following history.

She had had a small pimple on the left side of the nasal septum for about a week. While picking this sore spot on Mar. 9th, she started a free hemorrhage. On Mar. 10 and 11 she had two attacks of profuse hemorrhage. On the afternoon of the 12th, she lost so much blood that she became faint and sent for me. On removing the plug of lint which had been introduced the previous day I examined the septum and found a small spot covered with dried blood. On wiping this with a piece of cotton a distinct *spur of arterial and test plug*. The stream was about the size of a fine needle. The blood ran from the nostril in a stream, not drop by drop, and no blood ran down the posterior nares. Firm pressure on the outside of the nose with the finger and thumb would control the hemorrhage, and pressure on the upper lip under the septum also arrested the flow of blood. Nitrate of silver was applied with effect.

A piece of styptic cotton pressed on the bleeding spot for a few moments, stopped the flow of blood.

I advised the patient to be careful not to rub or in any way to disturb the spot. There was no recurrence of the bleeding, and the ulcer on the cartilage healed in about a week.

CASE IV.—Mrs. L., aged 50, had never before suffered from epistaxis. On Dec. 13, 1878, while picking her left nostril, it feeling sore, she started a hemorrhage. She states that the bleeding was so free that the blood ran from her nostril in a stream, and that it did not run back in the throat except when lying down. The hemorrhage continued with slight remissions from ten o'clock in the morning until four in the afternoon, when she sent for me. Not being at home, Dr. Maynard was called in and arrested the hemorrhage by plugging the anterior nares.

Dec. 14, I called, and on removing the plug there was a recurrence of the hemorrhage. On examination I could see an arterial jet from a small erosion on the septum.

This was arrested by the application of nitrate of silver. Patient had no recurrence of the hemorrhage.

REMARKS.—In all these cases the cause of the bleeding was found to be a small erosion or ulcer on the septum. In two of the cases the difficulty was on the left side. In the other two cases I failed to note the side from which the hemorrhage took place.

In cases III and IV, the existence of a soreness was noticed by the patient, and the hemorrhage was started while picking at or rubbing the tender spot.

The seat of the ulcer seemed to be in or about the same situation on the septum in all the cases, about half an inch from the lower edge of the middle of the columna. The septum at this point is supplied with branches of the inferior ethmoidal arteries which anastomose freely with branches of the sphenopalatine artery. The lower portion of the septum is supplied by a branch of the superior coronary;—the artery of the septum. In case III the hemorrhage evidently came from this vessel, as firm pressure over the upper lip near the columna arrested the bleeding.

One of the popular remedies for epistaxis is to roll up a piece of paper and push it up beneath the

upper lip. I remember that when a boy, I was at one time troubled with recurring attacks of nasal hemorrhage, and by the advice of a friend I was able to control the bleeding by this method.

This cause of hemorrhage is not mentioned by any of the writers that I have consulted, and I believe that many cases of epistaxis occur from this part of the nasal cavity, which are overlooked.

The practical point derived is, that it is advisable to carefully inspect the anterior nares and especially the septum nasi in all cases of epistaxis, before plugging either the anterior or posterior nares. If the hemorrhage comes from the septum it can be readily controlled by touching the bleeding point with nitrate of silver, or with styptic cotton, or with the persulphate of iron; and if these should fail the spot may be easily reached with a hot needle. Compression by plugging the anterior nares did not seem to do permanent good in the four cases related above.

In all the cases, the epistaxis occurred in patients who seemed to be in good health and had never suffered in this way before. No syphilitic taint existed in any of the cases. The hemorrhage in all the cases was very free while it lasted, and in the 2nd, 3rd and 4th cases which I saw, the blood ran in a stream from the nose. The recurrence of the attacks at short intervals is one of the distinctive features of epistaxis arising from this cause.

60 W. 40TH ST.

HOSPITAL RECORDS

THE GERMAN HOSPITAL, PHILADELPHIA

SOME INTERESTING CASES OF TYPHOID FEVER.

(Prepared for THE HOSPITAL GAZETTE by JAMES E. O'NEIL, M.D., HOUSE SURGEON.)

The following cases occurred among the sailors of the Russian steamers which were being built and repaired during the past summer and fall, on the Delaware river in Philadelphia:

Out of 550 sailors, 30 were attacked with different grades of typhoid fever. During the months of September, October, November and December, these cases were brought to the hospital. They were all seen by the attending physicians, Drs. Turnbull, Ford, Woodbury and Cohen.

With the assistance of Dr. Hermann and of the Russian physicians, it was determined to ascertain the cause of the outbreak. The majority of sick sailors came from one steamer, and as their drinking water was different from that of the officers we thus obtained the first clue as to the cause of the disease. Examining into this we found right in the immediate vicinity of this steamer a large privy, a large part of the excrement from which found its way into the water from which the sailors drank. On the other steamers this state of things was not found to exist; but the excrement and dirt on board was thrown over into the river, from which they at first obtained their drinking water. Surmising this to be the cause of a few cases of the disease they resorted to another source for their water, which caused the disappearance of the disease. The interesting cases brought into the hospital were:

B., aet. 23, robust constitution, entered the hospital after feeling out of sorts for five days. From his own statement, the prominent symptoms were, intense headache and great heat in the evening; did not seem to know the condition of his bowels, nor could we obtain any other symptom from him. On entering the hospital we found the following condition: Great headache, high fever, temperature 103° A. M., 104° P. M., pulse 90 to 100, skin hot and dry, great thirst, bowels constipated, tongue heavily coated with a dark-brown fur—deeply fissured, tenderness in right iliac fossa, no tympanitis and no eruption. He remained in this condition for seven days; on the eighth day he became delirious, necessitating his being tied with shackles; he refused to take any nourishment and would not respond to any command. His temperature rose up to 105° and his bowels were moved with an enema. On the twelfth day his delirium became active, wild, and after a heroic dose of morphia hypodermically, he appeared rational the next morning; his bowels were moved every third day with an injection; never once having the slightest tendency to diarrhoea; the injections acted very rapidly. On the fourteenth day after admission his temperature fell to 104° P. M., 103° A. M.; less headache, the skin still hot and dry; tongue heavily coated with a dark fur—deeply fissured; no rose-colored spots could be found on the body, and his bowels were still constipated. Late in the evening signs of approaching delirium seemed evident and he was given a large hypodermic injection of morphia; he slept well after the injection of morphia and appeared rational the next morning.

He continued in this condition until the 21st day, when his temperature rose to 105°, with great tympanitis, and diffused abdominal tenderness. He lost consciousness and died the same evening.

Autopsy.—Body was much emaciated. Lungs consolidated posteriorly, hypostatic pneumonia. Spleen enlarged and softened. Peyer's patches were in different stages of inflammation, some swollen, others sloughing and others having nothing but peritoneum for the floor of the ulcer. No perforation was found. This I suppose, would be called one of the grave forms of typhoid fever, though the temperature did not reach above 105°. He was systematically fed, but the emaciation in the last few days was very great.

The following is a good illustration of what has been called an insidious, latent, or ambulatory form:

G., aet. 37, was working at his usual duties as a sailor, noticing nothing abnormal except a little diarrhoea which caused so little disturbance as to pass unheeded. As he himself expressed it, his bowels were open only once more per day than natural. He had no evening heat, no lassitude, nor any thing marked that would lead you to think he had typhoid fever. All of a sudden he felt a sharp pain in the abdomen, which, in a few hours became unbearable; his belly became very tympanitic and tender to the touch; his temperature was 103°. P. M.; rose-colored spots were found on abdomen. He now presented all the symptoms of acute peritonitis and was treated with opium. He died in 12 hours after his admission.

Autopsy revealed ulceration of Peyer's patches in the 3d week, with a large perforation in an ulcer

near the ileo-caecal valve; recent lymph over peritoneum and bowels, indicative of peritonitis. Spleen enlarged and softened; others organs found healthy.

In addition to these, there were some very mild cases which we could justly class under the head of abortive variety. 3 cases of this kind presented themselves with the following symptoms, and course.

Some lassitude, headache, which increased in intensity in the evening, temperature 102° P. M., 100° A. M.; pulse, 90 to 100. Very little diarrhoea, stools thin in consistency and of a yellow color. Tenderness over right iliac fossa. In 10 days 3 of them showed characteristic rose colored spots on abdomen, one having numerous spots in both extremities, one, also, had considerable enlargement of the spleen.

In the beginning of the 3d week the temperature reached the normal and all symptoms of fever declined. Bowels became regular, headache disappeared, tongue clean, &c., &c.

We kept these cases under observation for weeks afterwards to see if any untoward symptoms came, at the same time keeping them on a liquid diet. 4 weeks afterwards they all left the hospital fat; one stouter than he was previous to the fever.

The following is a very grave case: R., aet. 22, entered the hospital about the 8th day of the disease with very high fever, pulse rapid, 120 to 124, temperature 106° P. M., 104° A. M., appetite capricious, tongue heavily coated and very dry. Bowels very loose, having as many as 12 stools per day, resembling pea soup in appearance; his headache was intense; ringing in the ears and flashes of light before the eyes. This condition of things went on for 4 days and then the characteristic eruption appeared. In the mean time his diarrhoea had been checked by the treatment. The temperature remained the same, and his headache was increasing. On the 13th day, i. e., from the beginning of the disease, he was suddenly seized with an active, wild delirium, which required constant restraint and watching, in order to prevent him from hurting himself.

He passed his urine and feces in bed, unconscious of what he was doing. His urine was examined and found highly colored, acid on reaction, but no albumen. Two days after the setting in of the delirium he became comatose and died shortly afterwards. The temperature the last two days was 105°.

Autopsy showed the characteristic lesion of Peyer's patches, with congestion of brain and lungs.

The following seems to be a recurrent attack of typhoid fever showing an abortive course:—C., aet. 25, had all the characteristic symptoms of the fever, diarrhoea, headache, tenderness in right iliac fossa, rose colored spots, and high temperature. In the latter part of the 4th week the temperature began to decline and in 5 days reached the normal. It remained normal for 10 days and he presented the condition of one convalescent from typhoid fever. Then the temperature began to go up for 5 days until it reached 103° P. M. and remained stationary for 6 days with a slight morning remission. 1st, the diarrhoea and headache returned and 2 days afterwards the eruption reappeared. After 13 days of relapse the temperature went down—and in 3 days reached the normal. He was very soon convalescent.

Out of 30 cases, 21 had diarrhoea differing in severity. Some having 9 to 12 stools, others 2 to 5

The eruption appeared in 21 cases. The majority having it on the abdomen. It appeared, in a few cases, at the same time, on the back. Two out of the 30, showed spots on both extremities. The number of spots varied. In some we counted as many as 20 to 25; in others only 2 to 5 could be seen. The two having spots on the lower extremities had the largest number. Tenderness in the right iliac fossa, was found in a good number of cases, but it was also absent where undoubted signs of typhoid fever existed. Delirium showed itself in one-third of the cases. Some had very high temperatures and others had very mild temperatures. Those cases having very high temperature, with active delirium, generally proved fatal.

Lung complications occurred in the majority of the cases, in the form of slight attacks of bronchitis, to pneumonia and pleurisy, the former predominating. Hemorrhage from the bowels occurred in one case, which recovered. As regards the prognosis, the most unfavorable signs were high temperature, active and wild delirium, severe diarrhœa. In two of the fatal cases there was a very prominent symptom, a quivering of the extremities on the slightest motion. When asked to protrude the tongue, it came slowly, quivering and uncertain; they were not able to protrude the tongue to its fullest extent, or when they did so, it was quickly retracted, on account of an inability to keep it out. Such manifestations were of unfavorable omen.

If there is a remedy I wish to laud, and to assert positively that it acts most beneficially, it is oil of turpentine, as formerly recommended by Prof. Geo. B. Wood. Especially was it found good in those cases where the dry, dark, and heavily coated tongue existed, with abdominal symptoms. We gave it in 20 gtt. doses in mucilage, every hour or two, and continued it in smaller doses with longer intervals

The mineral acids were found good in keeping the stomach in good order, stimulating the appetite, and relieving the intense thirst. Some cases would call for their dose of the acid hours before the time, so much were they pleased with its taste and effects. We gave 20 gtt. of the dilute nitro-muriatic acid every two or three hours.

As soon as the injection was given, he fell asleep, and awoke rational in the morning.

GLEANINGS FROM OUR FRENCH AND
GERMAN EXCHANGES.

III. KÖLLIKER—EXCISION OF THE PRIMARY LESION
(CHANCER) IN SYPHILIS.

CASE I.—Marie B., æt. 17. Date of infection and appearance of sore not obtained. Chancre size of bean on edge of left labium. No glandular swelling in groin or elsewhere. Excision March 15. Wound healed by suppuration and granulation. No subsequent induration. To date, July 6, 114 days after excision, probably 150 days after contraction of disease) no symptoms of constitutional syphilis.

CASE III—Male, at 27. Infection March 10, '78, few days hard chancre on prepuce. Slight induration of lymphatics. Excision April 7. Healed promptly. April 14, cicatrix again indurated. Enlarged glands. May 28, *Syphilis*, *sicilis*, *testis*, *ad* *ind.*, *vulvaris*.

CHAS. A. M., at 22. Introduction Dec. 15, 1877.

Hard chancre on prepuce Jan. 9, 1878. No lymphadenitis. Excision Jan. 16. Healed promptly, but cicatrix became indurated and bled. Bubo. Feb. 15, roseola syphilitica. Erythema papulosum. March 10, mucous patches on tongue. June 1, condylomata lata.

CASE VI.—Infection Dec. 15, 1877. Feb. 20, hard chancre. Lymphadenitis. Excision March 1. Healed promptly. April 20, angina syphilitica. Roseola syphilitica.

CASE VII.—M., æt. 22. Infection end of Feb. '78. Chancre behind corona middle of March. Lymphadenitis. Excision May 9. Healed, leaving hard cicatrix. Few days after excision syphilitic roseola, syphilitic erosion of tonsils.

CASE VIII.—M., 22. Infection May 5, '78. June 3, chancre behind corona. Bubo right side. June 13, excision. Healed promptly. No remaining induration. (To Oct., 1878, 147 days after excision, no signs of syphilis.)

It will be seen that the excision was practiced 7, 9, 10, 14, 21, 49 days respectively after the appearance of the chancre. (Date not given in one case.) At the time of excision, lymphadenitis existed in four cases, and in one of these no signs of the disease remained after 147 days.

The wound healed in six cases *per primam*, in two by suppuration. Cicatricial induration remained in three cases, and in two of these constitutional syphilis followed. In two other cases induration occurred again after a lapse of time and brought with it constitutional symptoms.

In three of the eight cases the disease was probably aborted or prevented by the excision.

Of the five unsuccessful cases the excision was made on the 7th, 9th, 14th, 21st and 49th days after the appearance of the chancre, and in three of these lymphadenitis had already supervened. Farther it is noticeable that in these five unsuccessful cases the syphilis ran a mild course, in that roseola, mucous patches in the mouth, and angina, were its only lesions. (1)

The conclusions Kölliker draws from these few cases may be summed up thus:

1. In certain cases excision of the initial chancre retards or prevents the constitutional infection of syphilis.
2. The co-existence of lymphadenitis does not contra-indicate the propriety of excision.
3. Nor does an early excision prevent the systemic absorption of the virus.
4. In cases not radically successful excision seems to modify the severity of the syphilitic infection.

Lastly, Kölliker endorses the axiom of *Auspitz* "that the chancre is not to be considered as an expression of a constitutional infection already existing."

In *Auspitz's* cases, of a total of 23, fourteen were not affected with syphilis after excision.

Sigmund, Lewin and Zeiss, deem this method of procedure as useless, while the results of investiga-

tions by Hüter, P. Vogt, Coulson, Thiry and others, were not encouraging.

[Although not expressly stated in the article it is understood that no constitutional, or any, treatment was instituted, other than simple excision of the primary sore.—W.]

V. V. BRUNS. NEW METHOD OF REMOVING THE LARYNX AND NEW ARTIFICIAL LARYNX.

Patient, night-watchman, æt. 54. Four years ago became hoarse and suffered with difficult respiration. Later paroxysms of suffocation, coughing and difficult deglutition had supervened, etc., caused by diffuse cancer of larynx, for which this organ was completely removed on January 29, 1878.

The trachea was first cut squarely across just above the first ring and a "tampon-canula" immediately fastened into this to prevent hemorrhage into the bronchi and to allow respiration to continue.

The larynx was then extirpated from below upwards. The patient walked from the operating table to his room and made a good recovery. In three weeks an artificial larynx was fitted to him, which enabled him to "articulate distinctly though in a low monotone."—*Cent.-blatt für Chir.* No. 50, p. 847.

G. BOCCILLI. TREATMENT OF AORTIC ANEURISM BY THE INTRODUCTION OF A COIL OF WATCH-SPRING INSERTED THROUGH A FINE TROCAR.

B. reports two cases. First ended fatally, the aneurism continuing to grow. The metal had caused no marked inflammation of the sac. There was a slight circumscribed inflammation, which had nothing to do with the fatal termination of the case. The spring coil was oxidized and broken into six pieces, covered with coagula.

The second case was operated on Apr. 23, 1877. A few drops of blood escaped through the canula. Introduction of three coils one m. m. wide ($\frac{1}{2}$ inch) of an aggregate length of 110 c. m. (44 inches). Next day diminution in size, pulsation weaker. April 26, following careless pressure upon the tumor with a stethoscope, which caused intense pain, alarming symptoms supervened, which continued until May 3, when death ensued. *Autopsy.* No inflammation whatever in the sac, which was filled with resisting organized coagulum, which seemed to have been loosened from the walls and packed into the tumor by the blood current.

There were ten fragments of the metal in the clot.—*Ibid* No. 50, p. 849.

CATGUT SUTURES IN THE SCLEROTIC.

Dr. Kerzendorfer reports two cases of penetrating wounds of the sclerotic, cured by stitching with fine catgut sutures.—*Ibid*, p. 854.

WOLFFER.—SUCCESSFUL REMOVAL OF AN ENORMOUS LIPOMA.

Patient, male, æt. 71. Lipoma of thirty years growth. Weighed after removal fifty pounds. Extended from neck and left shoulder and overlapped the nates. Arteries which fed it, size of brachial,

(1) It is possible that graver lesions might follow these milder symptoms after the lapse of more time.—W.

were tied in operation:—"Lister". Recovery prompt. Gangrene of right foot supervened after the operation, necessitating amputation above the ankle joint. —*Centralblatt für Chir.* No. 49, p. 837.

ROCKS.—ENTIRETATION OF THE ENTIRE UTERUS FOR CANCER—THREE OVARIES REMOVED.

Patient, æt. 39. Health good until lately, when cancer developed in the cervix uteri. No lymphangitis in inguinal or as far as could be determined in abdominal glands. After microscopical examination, which revealed carcinoma, operation determined upon. Lister. Pelvis elevated to prevent intestines gravitating toward incision. After drawing the uterus forward, the Fallopian tubes, and round and broad ligaments of each side were tied with two strong silk ligatures a short distance apart and divided between them. The ovaries were next removed (a third one the size of a hazelnut, being found in the folds of the broad ligament).

On account of adhesions between the uterus and the bladder and rectum, it was necessary to introduce the finger through the dilated urethra into the bladder in order to assist in the dissection and prevent the knife penetrating the bladder. The same procedure was followed through the rectum. The hemorrhage was inconsiderable. The peritoneal cavity was washed out, the wound of the peritoneum stitched with fine sutures, the abdominal wound closed, and covered with salicylated cotton. Rapid recovery. Highest temperature, 38.5°C . 100°F .

Patient left bed on fourteenth day.—*Centralblatt für Chir.* No. 49, p. 839.

BOUEHNE —FEMORAL HERNIA—NO HERNIAL SAC—INCISION INTO GUT ARTIFICIAL ANUS—RECOVERY.

Patient, female, æt. 50, delicate, complained of pain more than usual, and became unconscious. House surgeon, on examination, discovered an irreducible femoral hernia. After division of skin and fasciæ, the knife entered the intestine, which was not invested by the usual sac. Fortunately the gut was fastened at the margins of the ring by inflammatory process.

The artificial anus remained open for two months. Patient recovered. —*Id.* p. 841.

DESTRUCTION OF ARTERIES IN SURGICAL PROCEEDINGS.

Verneuil, in *Gaz. des Hôpitaux*, No. 132, p. 1049, writing upon this subject, after recital of interesting cases in which he had necessarily laid bare extensive surfaces of arterial trunks, in some of which ulceration of the vessels and hemorrhage resulted, and in others exposed to the same danger the reparative process was uninterrupted, concludes "these accidents must be attributed to constitutional, not to local conditions, and when an unfortunate diathesis exists, unfortunate results should be anticipated."

PHYSIOLOGY OF THE HEART AT THE MOMENT OF ITS FORMATION.

At the meeting of the French Academy of Medi-

cine, Nov. 12, 1878, M. Laborde proposes these solutions to the following queries:

(1.) At what period of incubation does the heart commence to pulsate.

(2.) At what portion of the organ does the pulsation commence.

(3.) What are the successive movements in a cardiac revolution and at what point of the organ does the revolution start.

Answers. (1.) The heart of the embryo begins to pulsate when it consists of a simple dilated tube at the twenty-sixth hour of incubation (probably sooner.) Alone of all organs, in the formative stage, it performs its function as it is developing. At this period the protoplasmic elements are absolutely unrecognizable, and though endowed with motion simulating muscular action, neither nerves or muscular elements can be discovered!

(2.) Cardiac pulsation begins at the venous portion of the heart, (the auricular) and it is this part which ceases last; the last and first to act.

SYPHILIS BY VACCINATION WITH HUMAN VIRUS.

The virus was taken from the arm of a child aged 7 months, apparently in perfect health. Twenty-five girls were vaccinated from this infant. At the end of 6 weeks, twelve of the girls were taken with symptoms of syphilis, ulcerations at point of inoculation followed by exanthema, ulcerations in mouth and pharynx, condylomata of anus, syphilitic ozæna, &c., three others of this group suffered from suspicious ulcerations near the vaccine sore, which failed to be followed by constitutional symptoms.

Later it was discovered that the mother of the child was suffering from syphilis.—*Gaz. des Hôpitaux*.

BERGER—DEATH AFTER CRYSTHOTOMY.

Patient was seized with rigors soon after operation and died in 81 hours. There had been no retention of urine. Autopsy showed acute interstitial nephritis. —*Ibid.* No. 142, p. 1134.

Subjects for Dissection, and the United States Eclectic Medical College. The sale of dead bodies for purposes of dissection and their purchase by the United States medical school was some time since brought to the notice of the health authorities. Dr. Stuyvesant Morris was appointed to investigate the matter and inquiry showed that the subjects had been purchased from the janitor of the University Medical School, having been obtained in the legitimate way. It appears that the United States Medical School faculty applied to the Commissioners of Charities and Correction for subjects to which such institutions are entitled by law, but receiving no recognition, they were constrained to purchase bodies. The school, it was found, was incorporated under an act of 1848 for the organization of benevolent societies, but as such it receives official recognition. The board declared any interference out of their province.

THE HOSPITAL GAZETTE,

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EDITORIAL.

IS EXCISION OF THE INITIAL LESION OF SYPHILIS A JUSTIFIABLE OPERA- TION?

The observations of Kolliker, reported in this number of the GAZETTE, give evidence of the fact that the subject of excision of hard chancres is beginning to attract attention; and we think this a favorable opportunity to call the attention of the profession to the results obtained by a procedure which is claimed by its advocates either to prevent altogether the subsequent manifestations of syphilis, or to modify the severity of the constitutional infection.

The idea of excising an indurated chancre was first suggested, as far as we have been able to ascertain, by Dr. F. N. Otis, who, in 1871, advanced his ingenious theory of syphilitic infection*—by which he claimed the incubative period of syphilis to be "the period required for the syphilitic disease germ to traverse the distance from the point of inoculation to the interior of a lymphatic vessel." The view was advanced by Dr. Otis that the action of the disease was entirely local and he explained it as follows:

1st. A coagulation of the superficial tissue fluids. A dilatation of the superficial blood-vessels. A consequent slowing of the circulation. The coincident attraction of a variable number of wandering white blood corpuscles—phenomena associated with any irritation of living tissue.

2nd. An entrapment of the syphilitic disease-germ by the wandering white blood corpuscle (through its amœboid movement), and the incorporation of the disease-germ into the substance of the white corpuscle.

3rd. An appropriation (as pabulum) by the disease-germ, of the substance of the white corpuscle, and the consequent development and multiplication of the disease-germ, in the white corpuscle.

4th. A consequent necessity of the white corpuscle for an increased supply of pabulum from the tissue fluids, the absorption of which, producing a rapid increase in size, and an abnormal tendency to

division or multiplication of the white corpuscle, through whose substance the multiplied disease-germs are now disseminated.

5th. Through the multiplication of the white corpuscle thus impregnated by the syphilitic disease-germs, the spread of the syphilitic influence at the point of inoculation, and from thence into the adjacent natural channels of the white corpuscle, viz., the *lymphatic canals*, through which, by the aid of the lymphatic current, they are carried along until arrested in the substance of the nearest lymphatic gland.

Up to this time (1871) the initial lesion was explained as the local reaction of the general systemic infection, which always occurred at the point of inoculation, but according to the theory advanced by Dr. Otis, *syphilis is a local disease* up to the period of the lymphatic infection, and is produced in the manner described above.

If this view is correct, *thorough* excision of the initial lesion of syphilis at a period before the disease germ has entered the lymphatic canal, should have the effect of preventing entirely the general infection of the system, and early excision, even though the lymphatics may have become involved, would, by removing a depot of syphilitic disease-germs, greatly modify the subsequent manifestations of the disease.

Now, let us see what we have ascertained by the practical application of this theory. Dr. Otis tells us* that his experience in nine cases of excision during eight previous years, warrants him in the inference that early excision of the initial lesion will modify the intensity of the subsequent general infection. Auspitz records 23 cases of excision, in fourteen of which there were no subsequent manifestations of constitutional taint, and Kolliker, in the paper translated in this number of the GAZETTE, records eight cases in which he practised excision of hard chancres, in three of which there were no secondary symptoms, and in the remaining five the secondary manifestations were mild. The results seem to sustain the position assumed by Otis, and endorsed by Auspitz, that the initial lesion is not an expression of constitutional infection, but that it is primarily a local lesion, and that the general system becomes infected subsequently through the agency of the lymphatic system. It seems also, that, where the initial lesion is suitably situated, it is not only justifiable, but that it is the duty of every surgeon to excise it, and thus give the patient the benefit of a possibility of preventing general infection, and the probability of lessening the severity of the subsequent manifestations. In another column will be found directions for the operation.

ABOUT BOOKS.

The Principles and Practice of Surgery, Being a Treatise on Surgical Diseases and Injuries. By D. Hayes Agnew, M.D., LL.D., in two volumes. Vol. 1. Philadelphia, J. B. Lippincott & Co., 1878, pp. 1002.

The long and eagerly looked for work of Prof. Agnew has at last made its appearance, and after a

* On the Physiology of Syphilitic Infection. By Fessenden N. Otis, New York, J. Lippincott, 1872.

* Classroom Lessons in Syphilis. Nov., 1878.

careful inspection of its pages, we must say, that had we waited for five years longer, we would be well repaid in having our expectations more than fulfilled in securing the admirable work now before us.

This treatise is intended to be comprehensive and complete, and judging from the way the author has handled the subjects treated of in the first volume, we may say that the work, when complete, will have no equal as a comprehensive text book, or rather, as a concise reference book for the practitioner. In the preface, Dr. Agnew says: "In the composition of its pages, while I have expressed my own views independently on all subjects, I have also endeavored, as far as was the scope and limits of the work, to record those of other writers, not only that the student and the practitioner may be made familiar with the literature of their profession, but also that they may be able in their observation and practice, to contrast different plans of treatment, and in this way draw their own conclusions in regard to the relative merits of the various modes of managing surgical disease." Can we say more than that, in our opinion, the author has succeeded in giving the surgeon a reliable guide to practice, and one which is a credit to his reputation as a teacher and practitioner, and a work which is a monument of the surgery of the present day.

The first volume, which is before us, contains ten chapters, as follows: Surgical Diagnosis (18 pages); Inflammation, (123 pages); Wounds, (103 pages); Injuries of the Chest and Abdomen, (73 pages); Wounds of the Extremities, 6 pages; Diseases and Injuries of the Blood-Vessels, 114 pages; Diseases of the Abdomen, (110 pages); Ligation of Arteries, 60 pages; Surgical Dressings, 37 pages; Injuries and Diseases of the Osseous System, 425 pages. The volume is illustrated with 807 finely executed wood-cuts, so that every available means has been employed to make the subjects treated of comprehended.

The praise we have bestowed upon this admirable work may seem to some trite, but in these days of book-making, when we are given a work from the pen of a teacher of wide repute, of a knowledge ability, and of matured experience, and when we find this work to be far superior to the many treatises that have weighed our shelves for years past, we may be excused if we express our satisfaction in language that may seem to some overdrawn. Dr. Agnew is giving the profession, in this work, the benefit of his life-work, and his only reward will be the satisfaction of having that work appreciated, and of knowing that it is of such a character as to exist as a monument to him years after he has passed away.

A Manual for the Practice of Surgery. By Thomas Bryant, F.R.C.S. Second American, from the Third English Edition. Philadelphia, Henry C. Lea, 1879, pp. 945.

The Principles and Practice of Surgery. By John Ashhurst, J. M. D. Second Edition. Philadelphia, Henry C. Lea, 1879, pp. 1000.

That both of these works have merit, is evidenced by the fact of the early demand for a second edition in this country. That either of them are better than the many excellent text-books now in use we ques-

tion. Of the two we give the preference to Mr. Bryant's work, as it seems more practical than that of Dr. Ashhurst. They are both works intended more particularly for the student during his college course, and for this purpose they are undoubtedly better than the work of Prof. Agnew noticed above. For the practitioner, however, and especially where his means are limited, the more comprehensive work of Dr. Agnew is to be preferred.

SELECTIONS FROM JOURNALS.

KERATOPLASTY

In *Græfe's Arch.*, 1878, 4th *Abth.*, Dr. Sclerbeck, of Berlin, reviews the subject of Keratoplasty, and justly characterizes as one of the most ingenious ideas of ophthalmic surgery the attempt to insert into a cornea so opaque as to be useless, a piece of transparent cornea, with the hope of establishing vital connections without losing the transparency of the inserted piece. He reviews the history of former attempts of this kind, showing that the attempts of 40 years ago were so unsuccessful that further experiment was abandoned till within the past two years, during which Power, v. Hippel, Rossmi, Schuler and others have revived the effort but without permanent good results. Sclerbeck's experiments on rabbits convinced him that a partial transplantation of the cornea without losing transparency was not only possible but could be accomplished with a tolerable degree of certainty, and in 1877 he tried transplantation from rabbit's cornea to the human cornea upon a patient 20 years old, with an opaque cornea result of recurring trachoma of lids slightly vascular, with here and there slight pigment spots from attachment of iris. This case ended completely, panophthalmitis setting in and destroying the eye.

The second case is remarkable in being an attempt to transplant from a human cornea instead of a rabbit's, which was taken from an eye just enucleated for cyclitic trouble, and the cornea was somewhat atrophied, though perfectly transparent. In this case the inserted disk obtained vital connections with the surrounding tissue on one side, but the other side becoming accidentally displaced, the opening closed beneath it, and the eye healed by ordinary cicatrization.

The third, and for the time, successful case, was that of a patient 21 years old, blind for several years from gonorrhoeal conjunctivitis. The piece to be transplanted was taken from the recently enucleated eye of a girl of 23 years, suffering from glaucoma. A disk of about 7 mm. diam. being taken from the opaque cornea of the man, a corresponding disk cut with the same trephine from the girl's eye was inserted and kept in place by broad conjunctival bands which covered nearly the entire cornea. Before the conjunctival flaps were adjusted, however, a fistula was made at the corneo-scleral junction to prevent the inserted disk from being pushed up by the filling of the anterior chamber with aqueous humor, this having apparently been the cause of failure in a previous case. The eye was carefully bathed with 4% carbolic solution and a light bandage applied. For 8 days the lid was not raised from the eye ball, and at the end of that time union by first

intention was found to have occurred. The fistula had healed, the transplanted cornea was transparent, the anterior chamber refilled, the lens transparent and in its proper place. On the 14th day the patient could read medium-sized print at from 7 to 36 inches. Unfortunately, at the end of the 3rd week an acute inflammation supervened, due, as the author thinks, to the irritation caused by one of the conjunctival flaps, which failed to reunite after being replaced in its proper position, and a partial cloudiness of the transplanted cornea ensued, and the vision declined to ability to count fingers at 6 feet.

S. B. ST. JOHN.

Hartford.

SACRO-ILIAC DISEASE, AND ITS DIFFERENTIAL DIAGNOSIS FROM MORBUS COXARIUS AND SPONDYLITIS: BY LEWIS A. SAYRE, M.D.

In the *Medical Record* for Feb'y, 15th, 1879. Dr. Sayre records his views on sacro-iliac disease, which he believes to be invariably of traumatic origin—The symptoms and differentiation are, in brief, as follows:—The inflammation at the sacro-iliac joint produces pressure upon the roots of the sacral nerves which is manifested by symptoms at their distal extremities, as difficulty in urination and defecation, and pain in the lower part of the abdomen, hips and thighs. To distinguish this disease from spondylitis affecting the lower dorsal vertebrae or sacro-lumbar disease, pressure should be made from the sacrum upwards and from the head downwards—which in the case of the latter disease would cause increased pain. The pain in sacro-iliac disease is not increased by these means but is aggravated by making lateral pressure of the ilia against the sacrum. Pain will be produced when the weight of the body is borne on the affected side, and the patient will accordingly relieve the diseased-joint as quickly as possible by a quick step to the other leg. The leg of the affected side is really longer. In hip disease the increase in length is only apparent.

In hip disease the patient stands with the thigh and knee of the affected side slightly flexed; in sacro-iliac the limb of the affected side is allowed to swing freely and by its weight relieve the inflamed surfaces of pressure.

In hip disease the toes are everted; in sacro-iliac disease they are not.

In hip disease the trunk is bent forward; in sacro-iliac disease it is bent toward the healthy side.

In hip disease, when the patient is in the supine position, the pelvis is tilted by pressing the knee downwards, until the popliteal space touches the table; in sacro-iliac disease, this does not occur.

In hip disease there is non-endurance of flexion, rotation and pressure on the great trochanter; in sacro-iliac disease these movements are painless.

The diagnosis of sacro-iliac disease can be further strengthened by noting a higher temperature over the affected joint.

Treatment consists of leeches and warm fomentations, followed by ice-bags, extension and counter-extension, as in the treatment of fracture of the femur, upon the articulation, while the patient is in the recumbent position. When the acute symptoms

subside, occasional blisters or the actual cautery. The patient should now get the benefit of out-door exercise, which may be accomplished by increasing largely the thickness of the sole and heel of the foot of the unaffected side. This will lift the patient so that the diseased limb will swing clear of the ground, and this weight will generally be sufficient to give ease to the inflamed joint. If it is not, the weight may be increased by a leaden sole to the shoe of the affected side. Dr. Sayre, after quoting the experience of Erichsen, Holmes, Ashhurst and Gross, as to the very unfavorable prognosis in sacro-iliac disease, records his own experience as curing 17 cases out of 18, which he had seen. The fatal case passed from his observation for two years, during which time it was maltreated, and the patient died a few days after coming under his care for the second time. This remarkable record of brilliant results of treatment is characteristic of Dr. Sayre, and our readers must judge for themselves of its value.

TRANSFUSION OF MILK.

Notes of two cases in which this operation has been performed are recorded in the British journals. The first was done in the County Louth Infirmary, Ireland, on the 21st of April, 1878, on John Coleman, who was suffering from severe hemorrhage (fatal), consequent on compound fractures of leg and thigh, involving the main vessels. The operator was Dr. Hercules McDonnell, of Dundalk, Ireland.

The second operation was performed in Dublin, in the latter part of January, by Dr. Robert McDonnell, on a patient suffering from extreme exhaustion consequent on typhoid fever.

The patient, a man about thirty years of age, took fever in November last. This was followed by great debility, emaciation, and exhaustion. Dr. Austin Meldon, under whose immediate care the patient was, tried all possible means to get up the strength. Several of the leading Dublin physicians saw the case in consultation with him, among others Dr. Lyons, who, as a last resource, suggested transfusion.

Dr. Meldon asked Dr. McDonnell to see the patient with a view to his performing this operation with his transfusion apparatus.

Dr. McDonnell suggested that the case was one suitable for trying milk instead of blood, as had been done by Dr. Pepper, Dr. C. T. Huuter, Dr. Gaillard Thomas, and others, in America.

On Wednesday, Jan. 22nd, the operation was performed in the presence of Dr. William Smyly, Dr. Martin, and Dr. Meldon. The milk was fresh-drawn from a cow on the spot. About ten ounces were passed into a vein at the bend of the elbow. During the injection the pulse rose and became fuller and stronger. Immediately after the completion of the operation the pulse became feeble, respiration labored, and the capillaries congested. This state of depression lasted about two hours, when a distinct and truly remarkable reaction took place. The patient passed a quiet night, and expressed himself as much better and stronger on the following day. On the seventh day after the operation the patient was making good progress, taking nutriment freely, although, of course, weak and exhausted.

CORRESPONDENCE.

SPONTANEOUS GANGRENE DUE TO EXTREME
ANÆMIA.*Editors of the Hospital Gazette.*

This case was attended by Drs. A. L. Randolph and Geo. W. Bottom, of Tallahassee, Fla., from one of whom I received the following particulars, and deem them of sufficient interest to appear in your valuable journal. The patient was about 30 or 35 years of age. He had bronchitis in Washington, D. C., and returned to Florida about a year ago. Soon afterwards he had hemorrhage from the lungs, excessive and very exhausting; it was thought he would die, as he lay pulseless for several days; he revived, however, and then gangrene of the feet showed itself, beginning with the toes, which turned perfectly black; it spread gradually up the feet to the ankles, and then a line of demarcation was observed, extending from the os calcis to the ankle-bones, marking out exactly that portion of the feet that we take off in Chopart's operation.

The progress of gangrene was the same in both feet.

The line of separation being formed, softening took place rapidly and spontaneous amputation occurred, the surgeon assisting by drawing out the bones as they became loose, and separating with knife or scissors the ligamentous or other attachments.

After the bones were all taken out, the stumps were nearly covered by the skin and cellular tissue, which nature had shaped with due exactness, and confined by strips of adhesive plaster, union took place as well as could be expected—indeed better, but the suppuration was profuse. He had strong hopes of recovery and getting about on his heels. During all the time, which occupied two months, he was kept up by stimulants, cod-liver oil, &c. His lungs were certainly nearly gone, pulse always over 120, hectic flush. His strong will no doubt sustained him. The cause of the sudden supervention of gangrene was no doubt the great loss of blood, as for several days he was thought to be dying, his extremities being perfectly cold and no pulse perceptible at the wrist, and very feeble propulsive power of the heart.

He had feeble constitution from earliest infancy which, coupled with acquired syphilitic taint, offered but a feeble resistance to the depressing effect of disease.

MILES H. NASH, M.D., 227 W. 13TH ST.

NEWS ITEMS AND NOTES.

Excision of the Initial Lesion of Syphilis.—Dr. Otes lays down the following rules for this operation. First cleanse the parts thoroughly by gentle bathing in warm water; in all open lesions apply a solution of creosote and of a strength of 1 part to 40 of water, after which raise the mass of induration between the forefinger and thumb, and encircle it firmly at the base with a bit of fine silver, or malleable iron wire. The indurated part may be separated from the normal tissue in the same way by compression between the arms of a bent probe being

careful to include the entire induration. Now, with a narrow sharp-pointed bistoury, pierce the tissues at the centre beneath the compressing wire or probe, and cut well under and out, including all the indurated and a little of the sound tissue of that side. This effected, from the place of beginning, cut out in the same way on the opposite side. Be assured, by careful examination, that every portion of the neoplasm is removed; then introduce uninterrupted sutures of silk or silver wire at intervals of $\frac{1}{4}$ of an inch. The patient should be kept in the recumbent posture, the parts constantly wet with carbolated water, until the third day, when, on removal of the sutures, union by first intention will, as a rule, have taken place. The resulting cicatrix may indurate to a greater or less degree, but rarely, if ever, to the extent of inducing a solution of continuity. In no case does this procedure lessen the necessity for constitutional treatment.

A Novel Suit Against a Hospital.—Emma Platt, a former nurse in the Pennsylvania hospital, of Philadelphia, began a suit for damages against the contributors of that institution, claiming that when she entered there in 1877 she was in perfect health, but owing to the food given her while there her health became so impaired that she was unable to properly discharge her duties. She alleges that the food was poisoned with the intent to destroy not her life but her intellect.

Judge Finletter directed a non-suit to be entered for the reasons that the party-defendant being unaware of the state of affairs cannot be said to have permitted the offense to have taken place. The whole ground-work of the plaintiff's suspicion is that this poisoning was done wilfully by the defendant's servants. If that is so, she is not entitled to receive damages from the employers.

There is no evidence that the lady was poisoned; the first time she recollects was after she had taken some milk, which tasted a little different from usual. At other times the evidence is simply that after eating she was sick. There are a number of reasons which medical men could ascribe why she might be sick after eating otherwise than by partaking of anything deleterious in the food.

I can readily see how a person situated as she was, brooding over it, and suspecting people of a desire to put her out of a position might come to the conclusion she had.

I do not see that there is a particle of testimony to justify the allegation made, and therefore the motion for a non-suit is granted.

French Doctors and Politics.—There are thirty-eight doctors in the French Assembly, and about a dozen in the Senate. There are large numbers in the Councils-General, and in the municipal Councils they almost balance the legal element. The great over-crowding of the profession in France has doubtless some influence in driving physicians into politics deliberately, but the great majority drift naturally into political life by a natural influence as country doctors.

Anatomical Illustrations by Plane Sections of Frozen Bodies.—This method of teaching anatomy has been adopted at the Royal College of Surgeons, London. The vessels are first injected with colored

plaster-of-Paris, and the bodies then placed in zinc tanks, and surrounded with ice and salt. A few days suffices to freeze the body through, and vertical and horizontal sections are then made by a common saw. We should like to see this method adopted on this side of the Atlantic.

Temperance Reform and The Philadelphia County Medical Society.—The report of the committee to devise a remedy for the growing evil of intemperance, was presented at a special meeting of the Philadelphia County Medical Society, held Feb. 27th, and after being thoroughly discussed, was adopted, together with a form of petition to the State legislature, asking the attention of legislators to the subject.

The gist of the remedy as proposed by the society is apparent from this extract from the memorial.

"There are few drunkards who would not gladly give up the evil habit of intemperance if they were able, but their moral force is gone. They need help. Such help can be most effectively rendered, in the opinion of your memorialists, by legal restraint and protection."

The plan suggested the appointment of a committee, upon the proper sworn application of a relative or next best friend, by the Court of Common Pleas, to examine into the condition of the supposed drunkard, and to report the result of their investigation. The committee was empowered, by and with the approbation of the court, to confine habitual drunkards in inebriate asylums. The court, committee, and the managers of the asylum, each have reserved the power to discharge patients.

The vexed question as to what constitutes "an habitual drunkard" is construed to mean "any person addicted to the use of stimulants or narcotics, or both, as to be incapable of taking care of himself, or herself, or property." This definition seems comprehensive at least, and the remedy proposed is novel in its way since it amounts almost to a self-imposed legal restraint.

Commencement of the University Medical College.—The medical department of the University of the City of New York held its thirty-eighth annual commencement at the Academy of Music last night. The graduates numbered 205, and filled the parquet of the Academy, while the boxes and even the galleries contained many friends and well wishers of the young students. The order of exercises began with reading of the Scriptures, and prayer by Chancellor Crosby. The conferring of degrees came next.

After the degrees were conferred came the distribution of prizes, the recipients of the Mott prize medals being as follows: For the best dried anatomical preparation, gold medal, W. R. Winters; for the second best, silver medal, Gregory Isklian; for the best book of recorded cases and remarks of the professor of either of the surgical clinics, bronze medal, E. R. Boden.

The recipients of the other prizes were: For the best examination in pathology and practice of medicine, J. C. McCoy; for the best examination in materia medica and therapeutics, E. E. Wallace; for the best examination in ophthalmology and otology, William T. Smith; for the best examination in ob-

stetrics, W. J. Harriman; for the best examination in diseases of the nerves, Edwin Walker.

Honorable mention was made of the following persons for proficiency and superior excellence, as shown in their examinations: C. M. Glenn, C. H. Brown, D. H. Wiesner, E. K. Root, C. Herzog, W. W. R. Fisher, N. H. Wilber, W. O. Bridges, G. W. Leonard, W. C. Davies, G. Voorhees, and C. E. Grovesteen. Messrs. H. M. Brown, F. H. Miller, and W. L. Ranney, who are under age, also received honorable mention. Honorable mention was likewise made of the theses presented by M. W. Van Denburg and C. M. Bradt.

THE VALEDICTORY.

William Carey Davies delivered the valedictory address. He began by saying that a distinguished novelist wrote, "Every woman is beautiful on her wedding day." This commencement, he then told his classmates, was their wedding day. He then alluded to the popular notion that medical students are robbers of graveyards; considered the necessity of medicine as a science, and closed with the relations of the medical profession to society. He claimed that no obstacles should be placed in the way of the practitioner in the acquisition of knowledge.

CHANCELLOR CROSBY'S ADDRESS.

Chancellor Crosby addressed the graduating class. He alluded to the difficulty of a man whose study of medicine has been purely a subjective one, and confessed that in visiting the medical department of the University, he was always compelled to practice a great deal of hypocrisy in order to seem knowing. When he came to advising the class, he quoted the old adage "a rolling stone gathers no moss," which he interpreted to mean that the roving doctor gets no practice. In the medical profession there must be a period of root-growing. "Identify yourselves with one place," he said to the young doctors, "and you will become as well known and as much used as the penitentiary. 'The early bird catches the worm,'" he interpreted as meaning getting out of his bed of a cold night or cheerfully turning away from a warm dinner. In conclusion, he quoted "Pleasant words are health to the bone," and said that a doctor's cheerfulness was often more effective than his physic.

Commencement of Bellevue Hospital Medical College.—The eighteenth annual commencement of the Bellevue Hospital Medical College took place yesterday afternoon at the Academy of Music in presence of a large and brilliant audience. Prof. Isaac E. Taylor, president of the faculty, and other physicians and members of the faculty, occupied the platform. After some pleasant music by Dr. Danrosch's band, and prayer by Rev. Alfred B. Beach, chaplain of the college, Prof. Taylor conferred the degrees upon 165 graduates. Mr. Richard O'Gorman delivered an address to the graduates, in which he impressed upon them, in eloquent terms, the dignity and nobility of the profession which they had embraced, and exhorted them to be faithful and zealous in its service. Hubert Haywood, M.D., of the graduating class, then pronounced a feeling valedictory, and the exercises, which had passed off successfully in every respect, terminated.

Commencement of the College of Physicians and Surgeons.

The seventy-second annual commencement of the College of Physicians and Surgeons, Medical Department of Columbia College, was witnessed last night by an audience that filled Steinway Hall from floor to ceiling. The graduates numbered 95. The diplomas granted, the audience waited with no little anxiety for the opening of the envelopes that contained the names of the prize winners. For the Stevens Triennial Prize, open to universal competition, no award was made by the committee, none of the essays having duly rebuffed the contention that they should be based on personal research. The Joseph Mather Smith Prize of \$100, open to alumni of the college, was allotted to Dr. William O. Moore, of New York. The three Harzen prizes, valued respectively at \$150, \$50 and \$25, were awarded, in order of merit, to Frederick Elden Brown, C. H. Merriam and W. R. Townsend. Six essays had been submitted for the Price of the Alumni, worth \$500, but in respect of originality all were found wanting, and the faculty thought it better to maintain the standard by refusing the prize. The awards for general proficiency were given to Messrs. J. W. Hopper, J. B. MacMahon and F. W. Corwin. Finally, Prof. Markoe stated that a large proportion of the Harzen Prize, which was originally destined for the best report of clinical instruction, having acquired by long accumulation a present value of \$20,000, would, by order of the Supreme Court, be henceforth diverted from its original object, which merely demanded a clerical and mechanical ability, and be divided into ten rewards for general proficiency.

Rev. Roswell D. Hitchcock closed the proceedings with an address to the graduates bidding them remember that the science of yesterday is the sophistry of to-day, that the physician is to society what the brain is to the body, and that, though America is perhaps overdoing herself professionally, yet no profession is crowded in the upper parts, and every new doctor can benefit and bless mankind and bring fresh honor to an honorable calling.

BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1893.

[No. 34. Week ended February 26th, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.

Washington, Feb. 26th, 1879.

Boston.—Week ended Feb. 22d. Deaths from all causes 139. An annual ratio of 20 per 1000 of the population. 14 cases of scarlet fever, 6 deaths; 20 cases of diphtheria, 7 deaths; bronchitis caused 7 deaths, pneumonia 10, phthisis 31.

New York.—Week ended Feb. 22d. Total deaths 551. Annual ratio 26.3. 3 deaths from enteric fever, 50 from scarlet fever, 15 from diphtheria, 15 from camp, 91 from pneumonia and bronchitis, 92 from phthisis.

Philadelphia.—Week ended Feb. 22d. Total deaths 353. Annual ratio 21.2. Enteric fever caused 10 deaths, scarlet fever 7, diphtheria 15, whooping-cough 4, acute pulmonary affections 55, phthisis 55. "Pulmonary affections prevalent, diphtheria increasing."

St. Louis.—Week ended Feb. 22d. Total deaths 10. Annual ratio 1.1. Enteric fever caused 2 deaths,

diphtheria 1 death.

San Francisco.—Week ended Feb. 14th. Total deaths 85. An. ratio 14.5. Enteric fever caused 2 deaths, diphtheria 3, pneumonia 16, phthisis 8.

New Orleans.—2 weeks ended Feb. 23d. Total deaths 189. An. ratio 23.4. Diphtheria caused 3 deaths, acute lung disease 29, phthisis 39.

Island of Bermuda.—In a population of 15,300, during the 6 weeks ended Feb. 18th, there were 15 deaths, over 50% being of persons over 80 years of age.

Small pox is very prevalent in Cuba, Brazil, Dublin, London, St. Peterburgh, and the parts of India, and less so at Buda Pesth, Vienna, Paris, Barcelona.

The Spanish Quarantine authorities report that Cholera exists, and is increasing in Turkey and Asia.

On account of the extremely virulent and contagious character of the disease that has prevailed in Southern Russia and the evidence pointing to its introduction from the East by commercial traffic, it is recommended that the health authorities of American ports exercise a close supervision over the importation of rags and similar substances, known to be effective carriers of contagion, arriving on ships from the Black Sea, and Mediterranean ports.

From the reports of the American diplomatic agents and other official sources sufficient facts have been gathered to strongly establish the probability of the epidemic disease prevailing in Southern Russia being a limited but very virulent outbreak of plague, and not simply malignant typhus as stated in the first official reports of the Russian medical officers. True plague has prevailed for two years in portions of Persia that were in constant communication with the villages of Astrakan, where the disease first appeared. The report of the chief medical officer of Astrakan states that an intermittent fever, accompanied with suppurating glandular swellings prevailed at Wetlyanka in Nov. 1878. The tendency of the disease was towards recovery up to Dec. 1st, when the fever assumed a malignant paroxysmal type, causing death in from twelve to forty-eight hours. Up to Dec. 1st, the mortality averaged nearly 50%, then rapidly increased until on the 29th, it had attained 100%, death resulting in every case. The most approved treatment was employed without benefit. Nearly all who came in contact with the sick, died, including seven Army surgeons, the priest, the nuns who nursed the sick, and the Cossacks who buried the dead. Early in January the government established a military Cordon around the infected villages in the valley of the Volga. Up to Feb. 1st, no authentic cases had been reported outside of this district. The Governor of Astrakan has been directed to burn the infected places, if necessary, the inhabitants to be removed to other quarters within a quarantine circle, and compensated. The German and Austrian governments have prohibited the importation of skins, furs, and rags from Russia, and railroad cars arriving from thence are disinfected at the frontiers. At the last official advices the virulence of the disease was diminishing at all the infected points.

JNO. M. WOODWORTH,

Surgeon-General,
U. S. Marine Hospital Service.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either to persons in the list, or as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by doing, will certainly continue their subscription thereafter. All we ask is a trial.

LECTURES.

BILATERAL AND UNILATERAL PARALYSIS OF THE RECURRENT LARYNGEAL NERVE.

A CLINICAL LECTURE.

Delivered at Jefferson Medical College Hospital.

BY

J. SOLIS COHEN, M.D.

Lecturer on Laryngoscopy and Diseases of the Throat and Chest, in Jefferson Medical College, and on Clinical Medicine in the Hospital.

Reported for THE HOSPITAL GAZETTE.

The patient is a sailor who has been badly battered about in the wars. He has a broken sternum, broken ribs, and broken nose. He was recently admitted to the hospital, with chronic rheumatism, for which he is still under treatment. In addition to this disease you see that he has lost his voice almost entirely, and that he speaks in a peculiar gruff laryngeal whisper with slight effort and waste of breath. On making a laryngoscopic examination I find that there is a paralysis of the right vocal cord, which remains rigid in the post-mortem condition, and that the cord of the sound side is forced to cross beyond the middle line to meet it so as to produce the voice. Questioning him with a view to getting at the cause of this condition, I find that about a year ago, during a raging storm, the sheet of his vessel went adrift and that one of the flying ropes caught him round his neck, right under the hyoid bone on the right side, almost strangling him. There was some little pain remaining after he was released from this precarious position, but he noticed nothing else until he woke up next morning, and soon afterwards found that his voice was entirely gone.

Physical examination reveals no disease in the lungs or other intra-thoracic lesion, so that there is good reason to consider that the injury received was the undoubted origin of the vocal lesion. This injury was probably severe compression of the recurrent laryngeal nerve in the cervical portion of its course. It might be thought that the chronic rheumatism of external articulations might indicate a similar condition of the crico-arytenoid articulation of the affected side, which is immobile on voluntary effort; but the distinct history of local lesion immediately preceding impairment of voice leads to the other conclusion; in addition to which it may be stated that the patient affirms that the accident and loss of voice preceded the rheumatism.

Unilateral paralysis of the right vocal cord, is a rare lesion, because the recurrent laryngeal nerve on that side passes under the subclavian artery between it and the apex of the right lung; is chiefly subjected to pressure from disease implicating the apex of the

lung or the artery, and protected from most intra-thoracic lesions. The recurrent laryngeal nerve on the left side, on the contrary, passes round the aorta and runs up behind it along the tracheo-oesophageal groove between the trachea and oesophagus and is therefore likely to be compressed by a variety of intra-thoracic tumors, enlarged glands, aneurisms of the aorta, pericardial effusion perhaps, and so on. The only point where the right recurrent laryngeal nerve can be compressed is at the apex of the lung and the cause of compression there is usually a deposit. Of course, when tumors or deposits are situated on both sides both of the recurrent laryngeal nerves may be compressed.

As I have mentioned, the vocal cord of the left side passes over to the right side so as to meet the vocal cord of that side, its arytenoid cartilage passing within that of the paralyzed side. The physical conditions for phonation are thus fulfilled, and this is the reason why there is usually more or less voice in unilateral paralysis. Indeed, in some cases there is little change in the quality of voice, only less in volume.

A unilateral lesion of the recurrent nerve is almost invariably due either to compression exerted upon some part of the nerve, or to some cerebral lesion. This latter may be either traumatic, specific, or idiopathic, in its origin. It may also be due to atrophy or disorganization of the muscles concerned or of the nerve tracts distributed to them; and this remark holds good for certain cases of bilateral paralysis also.

A bilateral lesion in which both vocal cords are affected may likewise be due to a cerebral lesion, or to some source of compression upon the courses of both the nerves. Occasionally a compression of one nerve produces reflex paralysis on the opposite side. So that the phenomena of essential bilateral paralysis are presented.

Paralysis of both of the vocal cords is also occasionally present in anæmia, chlorosis, phthisis, and as a result of a reflex influence from affections of the nares, pharynx, and oesophagus, from diseases of the stomach and intestines, and even from disorders of the genito-urinary and other remote organs.

This bilateral paresis of the vocal cords is likewise frequently a manifestation of hysteria, and when thus brought on the loss of voice goes by the name of functional or hysterical aphonia. Sometimes it is unassociated with hysteria, when the loss of voice is designated as nervous aphonia. Another frequent cause of the condition is found in out-door service, with exposure in house-clothing to damp and inclement weather. Quite a large proportion of our clinical cases are thus attributable to exposure to cold in servants who hang out clothes in wet weather, or who "clean the front." In both these varieties of cases there may be more or less imperfect attempts at approximation of the posterior portions of the vocal cords, but still they do not meet, and hence no voice is heard. Sometimes they meet as far as the vocal processes of the arytenoid cartilages, and gape behind, indicating paralysis affecting the arytenoid muscle only.

When the paralysis is complete on both sides it

not only affects the muscle drawing the vocal cords together, but also the muscle drawing them apart, the double effect being the production of an immobile condition of the glottis in the *post-mortem*, or cadaveric condition. This, however, is not frequent.

This brings us to a consideration of the symptoms. The *symptoms* of paralysis of the recurrent laryngeal nerves are dyspnoea, together with more or less dysphonia or impairment of voice, or complete aphonia or loss of voice as the case may be. When complete or when affecting the posterior crico-thyroid muscle, especially when bilateral, there will be stridulous inspiration.

In unilateral paralysis, as in the case before us today, the voice is usually not entirely gone. This is due to the fact already stated to you, that the vocal cord of the sound side crosses over to the paralyzed side, while the mobile supra-arytenoid cartilage passes inside of the stationary one to permit the apposition.

In bilateral paralysis of the recurrent laryngeal nerves there is also difficulty in expectoration and in coughing, because these acts require the approximation of the vocal cords to give a fulcrum for the special expirating movement that accompanies these acts. When a person talks in the laryngeal whisper there is very apparent and fatiguing loss of breath. This is not the case, however, when the labial whisper is employed where the whole of the expirating current is utilized. In unilateral paralysis, as a rule, there is no difficulty either in expectoration or coughing.

The *diagnosis* of bilateral and unilateral paralysis is only absolutely demonstrative upon laryngoscopic examination, though it may be inferred from the symptoms and the existence of certain diseases. Making this examination it will be seen that either one, or both of the vocal cords remain more or less immovable and do not reach the middle line, in attempts at phonation.

When the case is one of unilateral paralysis it is always well to suspect some compression of the nerve and it is therefore always necessary to examine carefully both the cervical and intra-thoracic regions for the presence of tumors or other enlargements which might press upon the nerve in some part of its course. The condition of the cerebral organs require investigation to judge of the existence of central lesion involving the points of origin of the pneumogastric or spinal accessory nerves.

The *prognosis* in bilateral paralysis, if it be not due to some central lesion, is usually good, not only as regards the life of the patient, but also with reference to the complete and perfect restoration of his voice.

In unilateral paralysis the prognosis depends on the nature of the causal lesion, and very often it is decidedly bad since the lesion which compresses the recurrent laryngeal is often of itself fatal. If on the left side this lesion is very apt to be either an aneurism of the aorta, or else a mediastinal carcinoma.

As regards the proper *treatment*, in unilateral paralysis it should be directed to the cause of the condition, whatever that may be. If there is still partial motility of the cord attention should be directed towards the increase of this power of movement by

electric excitation. Otherwise the treatment is similar to that about to be intimated for the bilateral lesion.

In bilateral paralysis also the treatment should be directed to the cause if it can be detected. Here such nerve tonics as strychnia, phosphorus, iron, and cod-liver-oil are indicated. In cases of weakness and inability to send the nerve current as it were from brain to ultimate distribution at command of the will, the so-called instances of hysterical and nervous aphonia, any excitation applied directly to the vocal cords is almost certain to bring about a cure. A sponge probang may be moistened and brought into contact with the cords which are thus thrown into a state of spasm and so brought together. Sprays of water, of ether, or of anything else at hand projected upon the part have the same effect, the same, too, holds good as regards pungent inhalations of iodine, chlorine, ammonia and other volatile substances.

When all these remedies fail direct electrical excitation is almost always satisfactory. It is a matter of indifference as to what kind of electricity is employed. The stimulus should be applied directly to the paralyzed muscle, the cord, or the nerve tract. The result is always the same.

In employing electricity place one electrode by means of a small moistened sponge directly over the crico-thyroid ligament outside, so as to be as near as possible to the vocal cords, which are in part continuous with this membranous structure, and carry a small electrode having the shape of the laryngeal curve into the larynx, placing its point either between the cords, or in contact with one of them. The current is interrupted by means of a spring connection or the intra-laryngeal-electrode, controlled by the forefinger of the operator. From four to five introductions of a few seconds duration each should be made daily until the voice returns. This result may be brought about by a single application. When the voice has returned the applications should be repeated at more prolonged intervals as long as required.

Where intra-laryngeal electric excitation is not possible the per cutaneous method may be tried. This consists in passing a current from one side of the neck to the other and so through the larynx. The current thus applied should have slow interruptions and continue for from two to five minutes.

If there is an electric machine at hand, the patient may be placed upon the insulating stool and a spark be drawn from the cricoid cartilage with the knuckle. When other methods fail this one may be very effective.

In cases of hysterical aphonia a cure may be affected by the mere introduction of the laryngeal mirror, the patient being given to understand that this is the curative procedure; a plan often successfully pursued in our clinical service. A little confidence upon the part of the patient joined with an effectual exhibition of will power upon the part of the physician will often combine in restoring the voice at once and without further trouble.

Another method of cure is to stand behind the patient and grasp the thyroid cartilage between the thumb and fore-finger, while at the same time the middle finger is placed under the cricoid cartilage

pulling it up and in front of the thyroid. In this way the vocal cords are stretched and made tense and so caused to vibrate by means of the inspiratory current.

Oliver's method consists in grasping the larynx externally and endeavoring to approximate the arytenoid cartilages slightly by means of the thumb and finger, at the same time persuading the patient to try and phonate during the process of manipulation. When the paralysis is due to atrophy or disorganization of the muscles or of nerve tracts it is irremediable by drugs or electricity, and if there be permanent dyspnoea from occlusion of the glottis, tracheotomy may become necessary, with permanent retention of the canula.

ORIGINAL ARTICLES.

REPORT OF A CASE OF CATALEPSY—WITH REMARKS ON ITS PATHOLOGY, AND THE HEREDITARY TENDENCY OF NERVOUS DISEASES.*

BY
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The rarity of catalepsy, especially to the general practitioner, is my apology for reporting this single case to the N. Y. State Med. Society. For more than thirty-five years, I have been a practitioner of medicine; and this is the first case of catalepsy that has come under my observation.

To me it was a stranger. I knew it only by name. My acquaintance with it was through books, and from these I made my diagnosis. But I can say for the benefit of my younger brothers in the profession, that they will never be mistaken in their diagnosis of the disease, if they have but once read its symptoms, and marked its peculiarities.

A lad eight years old, spare and of slight form, fair complexion, blue eyes, bright, and very intelligent, for one of his age. Nervo-sanguine temperament, and to within three months of this attack had uniform good health.

The boy attended school. He was obedient, quiet and reticent, though a good pupil, having his lessons usually well, so his teacher informed me.

About the middle of November, (six weeks before the first fit,) it was noticed by his parents, that he had periods of uneasiness, was restless, disobedient—ran away from home, and did on several occasions remain out late at night—once or twice was brought home by the police. No cause for this entire change of character was given by the parents. The mother was a step mother. The child would not or dare not give any reasons, why he pursued this course, if indeed he was aware of it. Parental government was strict, and to a casual visitor nothing improper. Nothing abnormal in the functions of the child was detected.

The family history shows that the grandfather on the mother's side was very intemperate—grandmother died of cholera. On father's side no history known. His own mother became insane three months after his birth and died insane six years thereafter. The father of the child is healthy. The patient has one sister ten years old, healthy.

On the 5th of January at 3 o'clock p.m. when in school, the child, suddenly became unconscious, (teacher's account) sitting on his seat, motionless, eyes closed. No change or flush of countenance, or spasm of extremities. An effort on the part of the teacher to change the position was readily accomplished, but the limbs, hands, head and feet would remain just where they were placed.

I was notified that a child in school had a "fit" and was requested by the principal to see it at once. Immediately I was in the schoolroom, where the little patient was sitting as still as a piece of marble, except the act of breathing. I saw no spasms, or evidence that he had had any. The pulse was normal, no increase of temperature. No distortion of features, or flush, or paleness. At first I was in doubt as to the difficulty. I placed the patient on the rostrum in the room and began my examination. On raising the hand, it remained where I left it, the legs, the arms, the mouth, and finally I had both arms and both limbs standing erect, the patient lying on his back. I then placed him in a semi-erect position, which was maintained for several minutes. In short the body could be moulded into almost as great a variety of attitudes as if it was a "figure of wax." There was a slight rigidity of the muscles, but easily overcome by force. The limbs would remain in any uncomfortable position for a time, and then with a tremulous and halting motion resume their normal state.

On the 6th he had another seizure which lasted *two* hours. Beginning at 6 o'clock, a.m.

On the 8th, another beginning at 5½ a.m. Lasting *three* hours

The 13th, at 6½ a.m., lasting *five* hours.

The 14th, at 6 a.m., lasting *three* hours.

The 15th, at 6½ a.m., lasting *twelve* hours.

During this seizure Dr. Moore, Sen., saw the patient, and suggested that with the regularity of the returns of the seizures it might arise from malarial causes or was feigned. He was treated with anti-periodic remedies; but without special benefit.

On the 20th, another seizure, commencing at 5½ A. M. After remaining in it for six hours, he was semi-conscious, and would, with great effort, utter a monosyllable, in a whisper, but after this fell back into an unconscious state, which lasted *twelve* and *a-half* hours.

During this seizure, many devices were resorted to, to arouse the patient. Dr. Moore, Jr., was present, and assisted much by his ingenuity in devising means to this end, but with no success.

On the 26th, another lasting *twenty-four* hours—patient semi-conscious.

From the 5th to the 26th there were eight seizures. The total number of hours the patient was unconscious, was *sixty four and a-half*.

When he came out of the "fit," he was cheerful and talkative, and ready to play, and desiring food. During the two last seizures he realized in part what transpired; but was unable to move or answer questions, except on the occasion named.

The cause of this peculiar case cannot be charged to improper ventilation in the school-room, for the building is the best constructed of any in the city, and this grade at the time, was not overcrowded.

The treatment was hygienic. He was taken from

*Read at the late Meeting of the State Society.

school, ordered a good diet, made cheerful by such toys, games and amusements as were accessible.

On the 20th of March he had a recurrence of one fit lasting twelve hours. On this occasion it was determined what was the exciting cause. It was suspected before, but it was impossible to get at the facts.

It was ascertained that the little patient was abused. His food was insufficient, he was poorly clothed, and for trivial causes, or no cause at all, he was unmercifully "flogged or punished." The case was reported by me to the Society for the Prevention of Cruelty to Children. The authorities investigated, and found the hard-hearted stepmother rendered the abuse before named, and as a penalty for her misdeeds, she was sent to the penitentiary for three months, and fined fifty dollars. The child was placed in an asylum.

There has been no return of the disease since the 20th of March—the time the exciting cause was removed.

Catalepsy is defined to be a disease in which there is a sudden suspension of the action of the senses and of volition. It is demonstrated to be a symptom or a sign of some disease.

It differs from the last by the peculiar rigidity of the voluntary muscles, retaining the limbs and body in the fixed position in which they may be placed by the hands of another. There is also a want of muscular spasm as in a fit or convulsion. So therefore, a seizure more properly defines the true cataleptic state.

The pathology is comparatively unknown.

Dr. Hammond says: "there are no post-mortem appearances characteristic of catalepsy. The phenomena of the disease observed during life, points to its seat in the brain and spinal cord. Like epilepsy, therefore, it is a symptom representing an unknown morbid change in the nervous centres."

Since no morbid changes have been observed in the organs and structures of the body, the pathology is undefined and comparatively unknown. Hence the course must be obscure, and must be arrived at by a cause of reasoning based upon certain symptoms observed during the paroxysm. The course of treatment with this unsatisfactory knowledge of pathology and cause must of necessity be empirical. In this, as in other diseases which have no well-marked pathological changes or known cause, the treatment is made to correct functional disturbances and restore the body to a healthy and normal state.

In giving the history of this case we observe the appearances and symptoms which are given in the books. "That the patient is suddenly stricken. The sensory functions, volition and consciousness are mostly or entirely suspended, and a peculiar rigidity of the voluntary muscles, which retain the limbs in the position they are left or placed in." This is unlike any other nervous disease. The muscles do not contract or the limbs fall by their own weight as in syncope. This resistance of gravitation shows that the muscle must be influenced by some power which is contractile more or less. Therefore the stimulus or exciting agent, which is brought into use so as to be applied to a particular or to a class of muscles, is certainly a very strange phenomena.

Neimeyer says "this phenomena is due to a contin-

ued excitement of the motor nerves." But neither he nor any one else that I find explains why external force applied arrests the action of one nerve and excites that of another.

The general supposition is that all the motor nerves are excited, but not to that degree as to resist external force or to overcome the power of the muscles, which is in force when the limb is placed in any given position.

The inability of patients to modify or control this excited state of the motor nerves by the force of their own will, indicates that there is a morbid condition of the brain.

Therefore we have in cataleptic seizures a derangement of the brain in conjunction with the motor nerves.

Authors agree that when consciousness is entirely suspended there is no effort on the part of the patient to speak or move, and he cannot, because that particular part of the brain is deranged, or the function whose duty it is to conduct the impression from the central organ of imagination and volition to the motor nerves is temporarily suspended. This subdivision of the functions of the brain is certainly logical, but to what extent experiment has demonstrated this assertion is unknown to me.

In this case the seizure, which occurred on the 20th, would seem to corroborate this conclusion.

In the etiology of catalepsy the profession is as much in the dark as it is in its pathology. It is divided into exciting and hereditary causes.

The exciting causes are emotional, such as fright, fear, grief, shock, and in this case, want of food and abuse.

Dr. Bedford reports a case which was dependent upon *chronic engorgement* of the uterus. (See page 502 of his obstetrical work.) In this case the derangement of the nervous system was due to a diseased uterus, and produced this special form of nervous disease. It is not uncommon to see epilepsy, hysteria, chorea, and mania, the result of functional or organic disease of the uterus. Why in this particular case we find catalepsy and not the other usual forms of nervous diseases is certainly beyond our knowledge to decide. But why not have catalepsy as well as either of the others.

The second cause of this disease named was hereditary. Here, no doubt, is the question of the greatest interest. For in the study of the transmissibility of nervous disease the question does not only interest the profession as a medical question but as a medico-legal one. But it is not my purpose at this time to discuss the question in all its bearings but to refer to it more especially as connected with the case reported. Reference to authority on this subject fully justifies me in saying that there is an hereditary tendency in this class of diseases, and that it has long been held to and adopted by the profession.

The history of this case says that the grandfather on the mother's side was *very intemperate*—that the mother of the patient died insane.

The patient had catalepsy at the age of eight years induced by exciting mental causes and physical abuse. This is the plain, simple statement, and from this we are to draw our conclusions. How the intemperance of the grandparent affected the daugh-

ter to produce insanity or how the insanity of the mother affected her child to cause catalepsy are questions we are unable to answer. We judge of these by experience, observation, and medical authority.

It is not begging the question to say authority teaches the transmission of this class of diseases in as varied forms as are found in this family. If recognized by others under similar circumstances we are justified in declaring this to be hereditary.

It is fair to assert that there was a germ in the offsprings, not unlike those in the egg, and when the equilibrium was disturbed, by exciting causes, it matured into active disease. It is well known that the egg has in itself no progressive power. It remains stationary till acted on by external agents. The principle that produces transmitted disease is dormant until acted upon by causes distinct from itself. But when it is acted upon it produces just the product that the principle has in its original transfer. The nervous disorganization of the father, caused by alcoholism, gave to his child a derangement that by external causes produced insanity, and so of her offspring.

This view of transmitted disease does not of necessity make all children of insane or intemperate ancestors, cataleptics or subjects of any nervous diseases. But children who have not this hereditary predisposition are less likely to have any of the forms of nervous disease—no matter what the treatment.

In the study of the laws governing inherited disease of the nervous system we must admit the fact, that the brain and nerves hold the same relation to each other, "that the bones and muscles and other structures of our bodies hold one to the other—all are integral portions of a single system—and that often the whole suffer a common and universal disease."

But in nervous diseases there is a peculiarity to limit themselves to the nervous system, and they manifest themselves in conditions unknown to any other diseased system of the body, yet they act or obey the general law of inherited disease, transmitting to the system some form of disease peculiar to its own system. It is an admitted fact that a parent may transmit to his child a different form of disease than that which he himself has. A syphilitic disease of the bones and membranes of the parent may appear in the offspring in the form of cutaneous eruptions, or in other forms of disease. A tubercular parent may transmit his consumption of the lungs to his child, in the form of tabes or tubercular brain disease or scrofula. So in the study of hereditary nervous diseases we have no certainty that the offspring will have the same form of disease that the parent had.

Dr. Maudsley says, "the man who becomes the victim of insanity is by no means certain to transmit that precise form of disease to his children (if indeed he transmits any) but it may appear in quite another region of the system." Thus, insanity in the parent may appear in the offspring as a disease of the motor portion giving rise to chorea, or to epilepsy, and, on the other hand, the epilepsy, catalepsy or chorea in the parent may appear in the child, as insanity or imbecility." From this high

authority it will be observed, that inherited nervous disease does not appear necessarily in the child the same as in the parent. Like other forms of transmitted disease it is confined to the same system, but may appear in a different name or form.

Authority says nervous diseases are more decidedly hereditary than any other, not even excepting tuberculosis.

This statement is based upon the fact, that the nervous system is the foundation upon which all later structural developments of the being takes place. It therefore seems rational that if any disease or any peculiar conformation be transmitted, its first and most marked impress should be upon the nervous system. It requires no argument to show that the brain and nervous system holds the foremost rank in the physical organization in point of sensitiveness and vitality, and for this reason are first and more easily deranged by any cause that produces an abnormal state of the system. The slightest external causes sometimes derange these sensitive organs to that degree, as to permanently destroy reason and render the person an irresponsible being. Such being the fact, from these trivial causes how much more readily will hereditary predisposition affect this system than that of other organs of the body from hereditary influences.

It is apparent from observation, that in families in which there is a strong predisposition to insanity, that all or many of the nervous diseases occur. Dr. Maudsley says, "that is not uncommon to find one member afflicted with one form of nervous disease and another with another—one with epilepsy, another with hysteria or neuralgia, or with melancholia and another becomes maniacal." From this authority we can claim that it is consistent with science and observation to assert, that there was an hereditary germ in the case reported, and that it was developed by exciting cause.

The mother became insane one month after the birth of the child and the inheritance was not the identical disease of the parent, but one of the nervous system. This is not inconsistent with science and observation in hereditary transmission.

In pursuing this inquiry, it will be proper to ask is there any hereditary predisposition to insanity, in this woman whose father was *very intemperate*.

Hereditary drunkenness as a disease is doubted by some very learned and scientific men. Dr. Ordronaux of New York says: "intemperance is an acquired habit and therefore drunkenness as a disease is not transmitted." His argument is, a child may inherit a tendency to drink; but it is ignorant of its effect until liquor is given it.

This certainly is true literally. But can it be said, that this inherited tendency is not an abnormal condition, which is a disease. It appears to be a morbid state that is satisfied only by imbibing the article, which the Doctor admits will produce disease. This morbid condition existed before the drink was taken, just as much as the poison to a contagious disease lies dormant in the system during the period of incubation. In neither cases did actual disease exist; but there was that condition in each that ripened into it, the one hereditary, the other from some other cause. Morally I admire the Doctor's position for he says, "the man who drinks

tempts himself, deliberately commits the act, and is morally and physically accountable; just as much as a sane man who deliberately commits a homicide." Such sayings are good, and are the best arguments that can be made against intemperance.

Dr. Stephen Rogers says: "that the parent who destroys the organization of his nervous system by alcoholic excesses is exceedingly liable to transmit to his offspring a disordered nervous system which becomes manifest in almost any form of nervous diseases." Dr. Darwin teaches the same doctrine, and says, "that all diseases from drinking spirituous and fermented liquors are liable to become hereditary even to the third generation, gradually increasing if the cause be continued till the family becomes extinct." Here is authority to show, not only the hereditary transmission of this class of diseases from this cause; but the abolition of procreative power.

Dr. Carpenter says: "the intemperate use of alcohol has a special tendency to produce idiocy, insanity or mental debility in the offspring." Again he says, "we should expect to find that the offspring of habitual drunkards would share with those of lunatics in the predisposition to insanity." Again, "the drunkard not only injures and enfeebles his own nervous system, but entails mental disease upon his family."

Much authority might be added on this point. In the reported proceedings of the Association of Medical Superintendents of Insane Asylums for 1876, the sentiment was that inebriety produced a morbid condition of the brain and nervous system, and was a common cause of insanity, and is transmissible.

Dr. Edward C. Mann, late superintendent of the Insane Asylum, Wards Island, says: "upon careful examination it reveals the fact that a large number of persons affected with epilepsy, are those whose parents or ancestors have been intemperate. He also claims that there is a very close analogy existing between the *dipsomania*, where there is a stage of nervous disturbance to that degree as to incapacitate the patient for mental labor, and the convulsion of an epileptic, whose paroxysm of intense excitement is preceded by the aura-epileptica, the only difference being the duration of the paroxysm.

The fact that a large number of epileptics are the offsprings of intemperate ancestors, is presumptive evidence that other nervous diseases may come from the same cause, since we learn from authority already quoted, that a variety of these diseases appear in the same family. It is not presumed however, that all epileptics have intemperate ancestors, for other causes exist which are as destructive to mental and physical manhood as intemperance.

Intermarriage stands foremost as a cause of nervous disease, degeneracy, defection of the senses and deformities. In such relations we have evidence that disease and defection is transmitted, for the offspring is the issue of healthy parents. This condition of the child is not accidental, for it is estimated that nearly 40 per cent. of children born of these parents are deformed, imbecile, idiotic or insane.

The evidence is abundant, and quite likely there is not a medical man but what believes in the transmission of disease.

The theory that an intemperate ancestor can transmit to progeny a disease so very dissimilar from the one he has, or even any at all, is questioned by good authority.

M. Moran, a French writer on this subject, says: "to constitute hereditary predisposition to insanity, it is not demanded that the parents or relatives should have been insane.

Nervous diseases undergo a metamorphosis from one generation to another. The more important of these neuroses are insanity, epilepsy, chorea, hysteria, neuralgia and catalepsy. It has been observed with respect to the inheritance of physiological peculiarities, that they are transmitted in their identity to the child. This is not the rule with nervous diseases. The child of an epileptic may be insane—the same fate may overtake the child of a drunken man or a hysterical woman."

From this we learn that it does not follow that the inheritor of an insane temperament must of necessity be insane. For it will be remembered that the hereditary predisposition is not an abstract quality, but a concrete condition of organism always bordering on, yet wanting some proximate cause to make it a actual disease. In youth it may be excited into action by mental application, in over study, by cruel treatment or various other mental and physical causes. In mature life by child bearing, the critical period and old age. These and other causes will produce neurotic disease, more readily in persons whose ancestors have been afflicted with any of the various forms of this class of disease. I stated in the beginning that the diagnosis of catalepsy was readily made. But there are, however, some abnormal conditions which might be mistaken for this disease. Dr. Flint in his practice of medicine mentions three viz., hysterical coma, mesmerism and ecstasy. The last named presents symptoms more nearly allied to catalepsy than the others. Ecstasy is a condition in which the senses are temporarily suspended and the mind carried away beyond the ordinary impressions, as when under the influence of disease or under the control of emotional feelings.

In this the person is absorbed in a dominant idea to that degree as to be insensible to surrounding objects. The body is fixed or stationary, with muscular immobility, rather than rigidity. "The countenance shows intense mental excitement," the mind is active and thoughts or visions are recollected after the spell is over. In catalepsy the action of the mind is suspended and the whole period of the seizure is a blank in the patient's memory. The ecstatic state has been denominated trance. This condition has been the wonder in all ages among the marvelous and superstitious as being supernatural. Trance has received some attention through the journals of late. Dr. T. Edward Clark of New York has recently published in the Psychological Journal an extended review of catalepsy and trance. The point of interest in the paper, is the discussion of what is called the "vital forces" and the means by which they are maintained in the physical economy, and by whose agencies life is sustained. He gives very clear differential symptoms of suspended animation and death.

The paper makes a marked distinction between

cataplexy and trance, and recites a large number of reported cases of suspended animation, of persons supposed to be dead and who would have been buried, "had not the surgeons knife restored them to sensibility." There is much interest in this paper, and it is worthy a careful study.

Without pursuing this interesting subject further we are led to the conclusion, that catalepsy is a distinct neurotic disease. That from the symptoms manifested during the seizure, the seat of the disease is in the brain and spinal cord. That it is an inherited disease and may be transmitted to the offspring, by the ancestors, who have been the subjects of any of the nervous disease, and of drunkenness. And finally are we not justified in saying, that in the case reported that there is more than presumptive evidence that this patient inherited the neuroses. The daughter of an intemperate father was insane.—this insanity developed by child-bearing or some other exciting cause, and that the predisposition to nervous disease, was transmitted to the child of this insane mother—the exciting cause being mental and physical abuse.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE by L. HOOVERMEYER, M.D., HOUSE Surgeon.)

DIFFUSE POPLITEAL ANEURISM, TREATED SUCCESSFULLY BY COMPRESSION OF THE FEMORAL ARTERY BY TOURNIQUET, ESMARCH'S BANDAGE, LIGATION OF POPLITEAL ARTERY, AMPUTATION OF THIGH—DEATH.

John J. (colored), was admitted to the hospital January 5th, 1879. Ten days before admission, the patient was assisting to carry a piano up a flight of stone steps, when one of those who were helping, let go, so that an undue share of the weight fell upon the patient, who, in endeavoring to save himself, struck the front of his left knee against the edge of one of the steps; at the same time he felt a "twitch" in the left popliteal space. The next day the left calf felt cold, and on the third day became painful, the pain extending down the leg to the foot; at the same time he noticed a lump in the popliteal space, about the size of a hen's egg. This rapidly increased in size and was attended with a constantly increasing amount of pain; the foot and leg also began to swell, and as the patient saw that his condition was steadily growing worse, he applied at the hospital for relief.

On admission, the patient's general condition was good; his pulse was strong, his appetite fair, digestion perfect; he had been unable to sleep for a number of nights past, by reason of the pain in the foot and leg. His previous health had been excellent; he had never had any of the continued fevers or rheumatism; denied having had and gave no history or present sign of syphilis; the arteries were somewhat hard and tortuous.

Examination revealed a tumor at the back of the left knee, extending from an inch and a half below to three inches above the middle of the popliteal

space, and from the inner margin of the patella to the outer border of the limb; it was hard to the touch and communicated a slight thrill to the fingers, but no distinct pulsation; a loud, rasping bruit was audible over the whole tumor but was most marked at the centre of the popliteal space. The foot and leg were tense and œdematous.

It was deemed inadvisable to attempt any remedial measures until the œdema of the foot and leg had been removed; accordingly, a bandage was carried snugly from the toes up to the knee and the foot elevated; the patient was put upon a nutritious diet and sleep procured at night by ʒij liq. morph. sulph. U. S. P.

Jan. 10th.—The œdema having subsided, the femoral artery was compressed in Scarpa's triangle by Dr. Mott's tourniquet; but this interfered with the return circulation and tended to induce a removal of the œdema, so that, after a short trial, it had to be given up. The next day, Jan. 11th, the attempt was renewed, the tourniquet being modified so as to constrict the limb as little as possible; but after being applied for about twenty hours, it had to be abandoned on account of the return of the œdema, having produced no effect on the tumor and caused sloughing of a small portion of the skin on the anterior surface of the thigh.

For the next three days the leg was again bandaged and the foot elevated until the œdema had disappeared. Meanwhile the patient had grown a little weaker and the tumor was slowly spreading up the thigh. A consultation was called Jan. 17th, and five of the visiting surgeons to the hospital saw the case during they next two days. The all agreed as to the diagnosis—diffuse popliteal aneurism; but they differed considerably as to the proper course to be pursued; one advised ligation of the femoral artery, a second thought that the choice lay between cutting down upon and tying the ruptured popliteal artery above and below the seat of rupture, and amputation of the thigh; a third, that the appropriate measure was ligation of the popliteal; a fourth said that, inasmuch as statistics showed that cutting down upon and tying the popliteal artery was always unsuccessful, amputation of the thigh held out the best chance for the man's life; while the fifth advised the application of an Esmarch's bandage.

As the last procedure was the simplest, and, in the event of failure, would not interfere with the other operations it was determined to try this first.

Jan. 19. The patient was etherized and an Esmarch's bandage was lightly applied from the toes to the lower border of the tumor, a single turn then passed across the anterior surface of the knee and the bandage continued from the upper border of the tumor to the upper third of the thigh. The bruit disappeared as long as the Esmarch was on; but when at the end of four hours (the patient having been kept gently under the influence of the anæsthetic during the whole time) the bandage was taken off, the tumor had increased in size, and the bruit returned as loudly as, if not more loudly than, previously.

The œdema having again been removed, Jan. 22 it was concluded to perform the operation of cutting into the tumor and tying the ruptured artery. The

patient was therefore again anesthetized and an Esmarch's bandage having been applied from the toes up to the groin and then removed except at its upper part, an incision about five inches long was made in the middle of the popliteal space. A mass of clotted blood, as large as a man's two fists, was found and turned out. It was then seen that the popliteal artery was ruptured in two places, about half an inch below Hunter's canal and at a point about an inch above its bifurcation. Three strong silk ligatures were passed around it by the aid of the aneurism-needle: one between the two points of rupture, a second about the upper, and a third below the lower. Three or four large veins were also found to have given way and were likewise tied above and below the points of rupture. Several small arteries having been tied the cavity was packed with strips of sheet-lint, a few sutures inserted at the upper and at the lower ends of the wound and the remaining portion of the edges brought together with straps of adhesive plaster. The limb, after the operation, was enveloped in cotton-batting and elevated. The patient rallied well from the shock. At 9 P. M. his temperature was 104° .

Jan. 23. His temperature in the morning was $101\frac{3}{4}^{\circ}$, in the evening 103° . His pulse was somewhat weak, but he complained of nothing. The toes were warm.

Jan. 24. Morning temperature 103° , evening, 103° . Toes a little cooler than normal; dressings changed; no suppuration had as yet set in.

Jan. 25. The foot was cold and anæsthetic, the epidermis of the leg was raised up by bloody serum; the limb emitted a foul odor—gangrene of the leg had undoubtedly set in.

As the patient was steadily growing weaker and the gangrene slowly advancing, it was decided that amputation of the thigh offered to the patient the only chance for his life. For the last time, on Jan. 26, he was etherized, and the operation performed according to the antiseptic method. Antero-posterior skin-flaps and a circular cut through the muscles were made, and the femur sawed through at its middle. The arteries were tied with carbolized catgut, a drainage-tube inserted, and the flaps brought together with carbolized silk sutures. The patient never completely came out of the shock. His pulse, which before the operation had been quite weak, grew feebler and feebler in spite of hypodermic injections of whiskey, and he died three hours after the amputation.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JNO. A. WYETH, M.D.

EHRMANN—LIGATURE OF THE COMMON CAROTID TO ARREST HEMORRHAGE FROM ULCERATION OF TONSIL.

Patient, male, æt. 22, had suffered from sore throat which terminated in abscess of the tonsil, which opened spontaneously. A severe arterial hemorrhage followed, which occurred a third time,

and the common carotid was tied. Hemorrhage did not return, and the recovery was complete. No cerebral symptoms followed. Ehrmann concludes that the "origin of these tonsillar hemorrhages is from the internal carotid, and that the only rational treatment is the ligature of the common carotid." *Gazette des Hôpitaux*, No. 146, p. 1165.

Chassaignac tied the primitive carotid to arrest hemorrhage after puncture of a retro-pharyngeal abscess. Patient recovered. Cured.

Dewar, performed the same operation to arrest hemorrhage from a "pulsating tumor" of tonsil. Patient recovered, cured.

Güntner, also in removal of a tonsil. Patient recovered, cured.

Duke, tied the primitive carotid to arrest hemorrhage after puncture of a supposed abscess (really a traumatic aneurism) of pharynx (Duke did not puncture the tumor himself. *Slight paralysis followed the operation and patient died on the 35th day from hemorrhage.*

Heine, operated in like manner in removal of sarcoma of right tonsil. *Paralysis of left side followed, with delirium and death on sixth day.*

Stanley, also, to arrest hemorrhage after puncture of tonsil, twenty-seven days after operation hemorrhage occurred, hemiplegia on thirty-first day, and death on sixty-first day. Autopsy; abscess and softening of the brain.

A. C. Post, also, on account of malignant disease of tonsil. *Paralysis ensued, and death from the disease and cerebral complications on third day.*

Of these eight cases, four recovered (Ehrmann, Chassaignac, Dewar and Güntner) and four died, (Duke, Heine, Stanley and Post).

Paralysis occurred in all of the fatal cases, resulting from the cutting off of the blood supply to the brain. Hemorrhage, fatal in one and probably the cause of death in the other, occurred after the operation in two cases.

In lesions of the tonsils, hemorrhage to an extent requiring operative procedures for its arrest may occur, 1st, directly, from the internal carotid, 2d, tonsillar branches from the ascending pharyngeal, 3d, tonsillar branches from the facial (or external carotid).

If the hemorrhage is from the internal carotid, it will be profuse, and demands arrest either by direct pressure or *ligature of the internal (not the common) carotid*, and the vessel should be secured on both sides of the lesion. Ligature of the internal carotid does not cut off the supply of blood to the brain to such an alarming extent as ligature of the common trunk, since the free anastomosis between terminal branches of the external carotid in the orbit with the ophthalmic artery and its branches, secures an important collateral blood supply to the brain, which of course, is lost in ligature of the primitive trunk.

Operators have not heretofore appreciated the danger of depriving the brain of one-third its blood supply by occluding the common carotid. In 323 fatal cases after ligature of the primitive carotid, I have obtained the cause of death in 200.

Twenty-seven per cent. of this total proved fatal from interference with the functions of the brain by depriving it of its blood supply, while in an addi-

tional 7½ per cent. interference with the cerebral circulation was an important factor in death.

Of these 323 fatal cases, the brain was examined in 67, and in 51 per cent. important changes were noted relating to its disturbed nutrition. (1).

If the hemorrhage is from the tonsillar branches of the facial or pharyngeal artery, ligation of the external carotid, one-half inch above the bifurcation (with the ascending pharyngeal, or any other branches in the immediate vicinity) should be performed—and if this does not arrest the bleeding, the common trunk and the internal carotid should be tried. In such cases the ascending pharyngeal will probably be found to be derived from the *internal carotid*, within the first inch of its course, since in seven of 120 dissections, I found this relation to exist. I therefore cannot endorse the conclusion of Ehrmann, who says "the origin of these tonsillar hemorrhages is from the internal carotid, and that the only rational treatment is the ligature of the common carotid."

J. A. W.

NERVOUS PNEUMONIA

Dr. Garcin, Hotel Dieu, Marseilles, reports the case of a man suffering from cancer of the œsophagus, who died of starvation. At the autopsy, extensive hepatization was found at base of left lung, analogous to the condition found in acute lobar pneumonia, while at the apex of the right lung there were several isolated patches of inflammation. A number of other cases were quoted where, from cancer of the œsophagus, various inflammatory or pneumonic changes were found in the lung substance. These changes Garcin holds are due to interference with the pneumogastric nerve or nerves in the diseased parts, and that the frequency of these pulmonic lesions, following this disease, are not mere coincidences, but due to pressure upon or degeneration of, the pneumogastrics. In this case the right nerve for a distance of three cm. (1½ inch), was entangled in the cancerous growth, the neurilemma was gone, the fibres separated and the axis cylinders of the fibrillæ had given way to granular degeneration. Legallois first, and after him Cl. Bernard, Livon and others, had noticed that the pneumonic process was instituted after division of the pneumogastrics. Garcin calls this *nerve pneumonia*.

DIFFERENTIATION BETWEEN INTRA-ABDOMINAL ANEURISM AND SOLID TUMORS PRESSING UPON THE AORTA.

MM. Franck and Boursier, presented a patient to the Société de Biologie, Paris, suffering from abdominal aneurism, and gave as proof of the correctness of the diagnosis, the following symptoms; (1) the pulse in the femoral was not synchronous with the radial pulse, but retarded, (2) increase of arterial tension by lateral compression upon the tumor, thus emptying it. These symptoms, it was argued, would not be present in a solid tumor resting upon the aorta.—*Gaz. des Hopitaux*, No. 147, p. 1171.

(1.) See "Essays in Surgical Anatomy and Surgery," by the writer. Wm. Wood & Co., 27 Great Jones Street, New York, 1879.

TRACHEOTOMY WITH THE THERMO-CAUTERY

Dr. Berger, at the September meeting of the *Société de Chirurgie*, presented a case of tracheotomy with the thermo-cautery, and recommended the incision to be made with this instrument, which prevented hemorrhage, thus rendering the operation more rapid, and avoiding the danger of asphyxia from hemorrhage into the trachea. Drs. Terrier and Tillaux remarked that they had been compelled to abandon the operation by the *thermo-cautery* on account of hemorrhage, and resort to the bistoury. Polaillon observed that proper and careful use of the instrument would prevent the possibility of hemorrhage. *See* did not favor thermo-cautery in tracheotomy. Verneuil spoke very favorably of the instrument. He had operated with it ten times. Krishaber had operated five times without hemorrhage. Auger once, with flattering success. *Ibid*, No. 145, p. 1159.

CHLOROFORM ADMINISTERED TO CHILDREN.

M. de Saint Germain gives a list of 83 boys and 41 girls, varying from ten months up to fifteen years, in whom he had produced anæsthesia by chloroform. The time required to produce anæsthesia varied from 15 seconds to 4 minutes. Among other conclusions are these. Certain conditions, as anæmia or bronchial catarrh, require great care. Anæmic children come very rapidly under its influence, but demand especial care on account of extreme liability to syncope. Sudden movements, especially elevation of the head, are dangerous. Children with bronchial catarrh come very slowly under the anæsthetic, and consequently require a relatively larger quantity of chloroform. Artificial respiration, by rythmical pressure on the thorax, is considered better than electricity or intra-laryngeal sufflation.

Drawing the tongue forcibly out of the mouth is rarely if ever necessary. Cardiac affections do not contra-indicate the use of chloroform in surgical procedures. It is most dangerous in operations in the pharynx or buccal cavity, hair-lip, uranoplasty, etc., etc., on account of hemorrhage into the trachea. Strong coffee should be given after the anæsthesia passes off to counteract the tendency to profound sleep which often follows chloroform inhalation. No attention whatever should be paid to the condition of the pulse. Attend to the respiration.—*La France Médicale*, No. 98, p. 774.

RENAL CYST MISTAKEN FOR OVARIAN—REMOVAL OF THE KIDNEY—RECOVERY.

Patient æt. 49, previous history good. Had borne five children to term and two miscarriages. Ten months since she noticed a tumor developing in the left iliac region, which in the last two months had increased rapidly in volume. Patient became emaciated. No albumen in urine. Tumor movable in every direction, 6 by 7 inches in diameter. Fluctuation very perceptible. Diagnosis, ovarian tumor. Operation. On opening abdomen, both ovaries discovered to be healthy. On puncturing the cyst 2½ pints of fluid escaped. Cyst adherent to kidney, which was degenerated in its lower portion. The renal vessels and ureter were tied, and the kidney removed with the cyst; 4 months later recovery complete.—*Ibid*. No. 99, p. 783.

BIPLATERAL OVARIOTOMY—RECOVERY—DAUFERON-RAPOEL.

Patient æt. 35. Had borne two children. Sept. 3, 1877, an ovarian cyst was punctured and its contents escaped. Ovariectomy soon after. The antiseptic method was practised to an "extent bordering on luxury." The twelve persons present wore perfectly new clothes. The peritoneal cavity was cleaned out after the escape of the contents of each cyst. Fifteen carbolyzed silk ligatures were applied. A clamp was applied to each pedicle, one of which came away the 8th day, the other on the 11th; 27th day patient was presented to the society cured. Daubrowhoff recommends chloro-methyl in place of chloroform, as vomiting is not so apt to occur.—*La France Medicale*, No. 100, p. 793.

THE FIRST OVARIOTOMY IN PERU!

Dr. Lino Alcaro performed this operation successfully in the city of Barranco, Peru, on June 12, 1878. It had never been attempted in that country previously.—*Ibid.*, No. 95, p. 752.

A NEW SIGN OF PREGNANCY DISCOVERED.

Dr. Dumm, of Constance, has discovered that three or four weeks after conception, if the index finger be carried to the os uteri, a cheesy odor may be recognized, which only exists in this condition (?)—*Ibid.*, p. 752.

CEREBRAL LOCALIZATION.

Dartignolles reports the case of a railroad employee who, while looking out of the window of a train in motion, had his head struck against a water-tank. The blow was on the left side of the occipital bone, which was depressed. Patient was unconscious for several days. When consciousness returned he could only express himself in the *patois* of his native village, and it was sometime before he was able to speak in French. Little by little locomotion, memory and articulation returned until recovery was nearly complete. Two years after the accident a slight difficulty in the movements of one eye alone remained.—*La France Medicale*, No. 92, p. 729.

PISTOL-SHOT WOUND OF PERICARDIUM AND STOMACH—PARTIAL PENETRATION OF THE HEART—DR. FOUILL.

An Arab, æt. 30, in good health, was wounded by two balls from one chamber of a pistol fired at two paces distant. One entered a finger's breadth below the tip of the xiphoid appendix in the median line; the other a centimetre to the left of and below this. There was no hemorrhage. A doctor prescribed something which produced vomiting, but no blood was in the ejected matter. The patient was in a state of extreme prostration. The balls lodged within. The wounds of entrance were sealed with cotton-wool. Evening temperature, 99°. Normal vesicular resonance. Pre-ordial region tympanitic. Moist rales. Sharp pain in neighborhood of left clavicle. Sensibility exaggerated in epigastria region. Dyspnoea, 30 respirations to the minute. Jugulars distended. Second day, temp. 101.3°. P

120. Third day pleuro-pneumonia on left side low down in front. Sixth day, aspirated cavity through seventh intercostal space, and 150 grammes of bloody pus withdrawn. Same operation on 13th day and 800 grammes withdrawn. Patient improved; on 32nd day profuse bloody expectoration; 42nd day symptoms of peritonitis, which disappeared; 64th day patient left the hospital against advice of surgeon. At this time lung and heart sounds normal, and appetite fair; 101 days after the accident he returned to the hospital complaining of fever in the evenings, and at times rigors. Pain in gastric and liver regions. Temperature at times below normal, 95.9°; 105 days after injury patient died with symptoms of peritonitis. The autopsy revealed perforation of the stomach and pericardium and wound of the walls of the heart, which had cicatrized.—*Le Progres Medical*, Jan. 4, 1879, p. 1.

The Annual Commencement of the Medical Department of the University of Pennsylvania.—The Alumni Association of the University of Pennsylvania held its annual celebration at the University on Thursday evening, March 13th. After the reception of reports and an oration by Dr. Steiner, of Maryland, a collation was partaken of and an election held for officers, with following result:—

President—George B. Wood. Vice-Presidents—John L. Atlee, Meredith Clymer, W. S. W. Ruschenberger and Thomas J. Gallagher. Treasurer—Wharton Sinkler. Corresponding Secretary—H. R. Wharton. Executive Committee—Hiram Corson, Edward Hartshorne, William Hunt, Andrew Nebinger, John H. Packard, H. Lenox Hodge, James H. Hutchinson, James Tyson, William F. Norris, Samuel Ashhurst, Thomas J. Yarrow, R. A. Clemann, William Pepper, S. S. Stryker, C. B. Nancrede, D. F. Willard, Louis Starr, Charles Baum, Charles M. Seltzer, Thomas H. Cathcart. Orator—Traill Green, Pa.

The commencement exercises of the Med. Dep. were held in the Phila. Academy of Music on March 14th. Provost Stillé conferred the degree of M.D. on 91 graduates, and that of D.D.S. on 25 graduates.

The valedictory address was delivered by Jno. Ashhurst, Jr., M.D., Professor of Clinical Surgery.

The first prize of \$100 was awarded to William G. Davis, Pa., and the second of \$100 was divided between F. H. Cathcart, Pa., and David Cerna. Those who were mentioned as distinguished were Griffith E. Abbot, (Ph. D.) Pa.; William H. Burk, Pa.; Wm. E. Casselberry, Pa.; Jacob M. Frazier, Texas; Peter McGill, Pa.; Edward T. Reichert, Pa., and J. Sumner Stone, W. Va. The gentlemen honorably mentioned were, Granville G. Faught, Pa.; Robert W. Johnson, Md.; G. D. MacGowan, Pa.; Abraham Morejou, Cuba; Frederick C. Shepard, N. J., and Louis Zentmayer, A.B.) Pa.

The gold medal Anatomical Prize was awarded to Frank O. Nagle, Pa., with distinguished mention of Wm. G. Davis, Pa.; John A. Fritchey, Pa., and Cliff M. Sherron, N. J. The Anomalous Anatomical Prize was awarded to Louis Ph. Carbonell, Cuba, and the following gentlemen were mentioned as having distinguished themselves: John M. Edgar, Pa.; William E. Hughes, Pa., and B. Alex. Randall, Md.

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EDITORIAL.

HIP-JOINT DISEASE. OPINIONS AND PRACTICE OF AN OLD AMERICAN SURGEON.—A CONTRIBUTION TO THE LITERATURE OF THIS SUB- JECT.

Professor Amasa Trowbridge, of Watertown, N. Y., who was for many years the leading surgeon of Northern New York, and at one time the Professor of Surgery in the Willoughby Medical College, Ohio, in a paper on "hip disease," contributed to the *Boston Medical and Surgical Journal* for May 10th, 1843, says: "I am satisfied that nearly all (which he had seen) originated, like affections in other organs of the body—from accidents, as *blows, falls, sprains, &c.*" * * * but, he adds, "there may be constitutional indisposition, such as syphilis, scrofula, scurvy or deficiency of nutrition." He recognized, therefore, both the predisposing and the exciting cause as being present in most cases; but he claimed that both causes are not always necessary to the production of the disease in question.

As to the treatment in the first stages, Dr. Trowbridge believed that rest in the horizontal posture, with "general bleeding, cupping, leeching and counter-irritation" were required. This was the general practice, also, of that day. But Dr. Trowbridge added a curative measure which has been supposed to have been of more modern suggestion, and which was not employed, so far as we know, by other surgeons of that period, namely, *extension*. "First, to prevent the motion of the diseased parts; and second, to keep up permanent extension until ankylosis took place, which might, in some measure, preserve the natural position and length of the limb." For this purpose he employed Hagedorn's splint, Gibson's modification of which is shown in all of the editions of Dr. Hamilton's work on Fractures and Dislocations and the principle of its action is there explained. Dr. Trowbridge does not say, in so many words, that the use of Hagedorn's splint was continued through the second stage, but this is inferred.

In the *second* stage, the depletents and counter-

irritants were omitted; but the moment that the existence of pus in the joint was assured, he laid open the joint freely. "An opening can be made into the hip-joint with as much expedition and safety as into any other joints of the body. My mode has been to make an incision through the integuments, over, and in the direction of the lower edge of the gluteus, and the upper edge of the pyriformis muscles, with a scalpel, and then push a double-edged scalpel directly to the upper portion of the neck of the femur. This opening can be extended, if necessary, to meet the object for which it was made."

It has been generally stated that Prof. Alden March, of Albany, was the first in this country to suggest and practice extension in the treatment of hip-joint disease, but in his paper on this disease read before the American Medical Association at its regular annual meeting in this city in May, 1853, Dr. March gives credit for precedence to Dr. Wm. Harris, of Philadelphia, he having published in the *Medical Examiner* for January 19th, 1839, four cases treated on the principle of extension, by means of Physick's long splint, modified by Gibson. The splint used by Dr. March was devised by himself, and is figured in the transactions of the Association. As a means of permanent extension, however, none of the forms of apparatus employed by these gentlemen were as simple or as effective as the method we now employ, known as Buck's extension, namely, the pulley and weight.

SELECTIONS FROM JOURNALS.

ON THE RISE AND FALL OF TEMPERATURE AND FREQUENCY OF THE PULSE CAUSED BY TEPID BATHS.

In order to ascertain the exact alterations of temperature which are caused by baths, Dr. von Liebig *Aerzte Intelligenzblatt*, 1878, Nos. 23 and 24) made a great many experiments on himself, which gave the following results:—

During a tepid bath of 89°, which lasts for thirty minutes, the frequency of the pulse is very little lessened, but goes on decreasing during half an hour to one hour after the bath, which time corresponds to the chill that is always experienced after bathing. The temperature taken in the mouth rose a little during the bath, and sank after it, being lower two hours after the bath than it had been before it. The curves of the pulse, which were taken about an hour and a-half after the bath, showed a slight deviation from the normal curve, the highest point of the ascending stroke being flattened and reascend of the down stroke entirely deficient. This is explained by the arterioles being contracted by the cooling of the skin, and thereby increasing the resistance in the arteries. The diminished frequency in the pulse may be traced to the same origin.

The elevation of temperature during the bath is caused by the decrease in the loss of heat. The increased expiration of carbonic acid is explained by the fact that during the bath the lungs are not subject to the pressure of the water, the blood circulates more quickly in them. The skin is stimulated in different ways during a bath. These are tempe-

ature of the water, pressure of the water, suppression of the exhalations of the skin, and in salt water the osmotic influence. On leaving the bath, these effects of stimulation are of course changed.—*London Medical Record.*

SYMPTOMS OF THE THIRD STAGE OF PNEUMONIA.

In a clinical lecture at La Charité (*Gaz. des Hop.*, Oct. 15) on "The Signs by the aid of which we may diagnose the Passage of Pneumonia from the Second to the Third Stage," Prof. Hardy, after relating the case of a woman in whom such diagnosis had been verified by the autopsy, observed that among the symptoms by which, in certain cases, the passage of the lung from red hepatization into gray hepatization may be indicated, the character of the expectoration may be mentioned in the first place. In the third stage of pneumonia, in place of being colored, viscous, and adherent to the vessel containing it, the expectoration consists of a whitish or grayish secretion, somewhat resembling pus diluted with water. Unfortunately, at this period of the disease, expectoration is often suppressed, so that this valuable element of diagnosis is wanting. As to the opinion held, that in this last phase of pneumonia the expectoration is of a plum color, that is an error, as this color is also met with in the second stage as well. The cough presents nothing special; beyond that in general it is not strong or intense, and sometimes the time comes when it ceases altogether. The dyspnoea is very great, as expressed by a sense of suffocation as well as by the great frequency of the respiratory movements. But this is a sign of no great value, as it is also met with during the second stage when the pneumonia is very extensive. With respect to the general symptoms, one of the best characteristics which may aid our diagnosis is the occurrence of shiverings, not very intense, but well marked, and which are repeated two or three times within the space of several hours. It is especially in very bad cases that this phenomenon is observed. The fever is always very intense, the pulse oscillating between 130 and 150, and being also small and irregular. This sign, however, has no absolute value, for it is also met with during the second stage, when the disease is about to terminate fatally. The temperature also does not aid the diagnosis, it being during the third stage, sometimes greatly raised and sometimes a little diminished. Upon the whole, it would seem, at this epoch of the disease, to tend towards becoming lower; and from 40° and 41° C., which it had been for some time in the present case, it descended during the last period of the patient's life to 38.9°. If this observation becomes confirmed by others, it will be of great value in establishing the passage of pneumonia to the period of suppuration. Sometimes the aspect presents quite a special character. Ordinarily, indeed, the features are changed, and the face is pale and leaden, resembling sometimes the appearance of patients during the last stage of heart disease. In some, this color is contrasted by a bright red, limited to the cheek-bone of the affected side, and due to paralysis of the branches of the sympathetic. It is not uncommon also to meet with some amount of disturbance of the intellectual functions, a subdelirium generally existing.

These phenomena are far from being quite characteristic, and, with the exception of the repeated shiverings, the sero-purulent expectoration, the frequency and irregularity of the pulse, and the change in the features, are of no great value. The physical signs are absolutely the same in the two stages, for in both the lung is solidified, and in both the solidification gives rise to identical phenomena.—*Med. Times and Gaz.*

ON THE VALUE OF SUBCUTANEOUS INJECTIONS OF ERGOTIN IN UTERINE FIBROIDS AND CHRONIC HYPERTROPHY OF THE UTERUS.

This is the subject of a valuable contribution by Leopold, in the *Archiv für Gynäkologie*, Bd. xiii. s. 182. Leopold supports Hildebrandt, Winkel, Wernich, etc., as against the late Professor Martin, of Berlin, and others, maintaining that ergot so employed is of great value in the treatment of uterine fibroids. But he further has employed the same agent with considerable success in the treatment of subinvolution of the uterus and of chronic metritis. It is maintained by him that success depends largely upon the mode of performance and the continuation of the treatment, the selection of the cases, and especially the selection of the preparations. Failure, Leopold holds, has followed from neglecting these considerations. According to our author: The form of fibroid that gives best results is the interstitial, although advantage may be expected in the way of lessening hemorrhage, and promoting ultimate expulsion of the tumors in submucous fibroids. Cases are unsuitable in which the uterus is incapable of contracting; therefore there is no use of employing the injections when there is any false membrane or exudation binding down the uterus, or when it contains a fattily degenerated or calcareous tumor, when its muscular fibres are atrophic, or its bloodvessels degenerated. Tumors in the body of the uterus are more benefited by the treatment than those in the neck. Great care is to be employed also in selecting for treatment cases of subinvolution or chronic metritis. Every case in which there exists pelvic exudation is to be rigidly excluded, also if there is a polypus in the uterine cavity. The best preparation Leopold finds to be Wernich's extract dissolved in four parts of distilled water. After trial he has found that the addition of glycerine, salicylic acid, carbolic acid, or morphia is objectionable. He recommends that the solution should be very frequently renewed, as it is apt to get mouldy. The best situation for injection, according to Leopold, is by the side of the navel, the canula being inserted deeply into the abdominal wall. The injections ought to be made very slowly, and a cold compress ought to be immediately applied to the part, whilst the patient ought to keep lying on her back for several hours afterwards. The injections ought to be continued for a considerable time—30–120 in each case—if they are well borne. They should be made almost uninterruptedly each day, especially and intentionally during the menstrual flow. With diminution of the bleeding the periods between the injections may be lengthened. Leopold records 12 cases, in which he had employed the ergotin injection. There was no improvement in 3 of these—25 per cent. There was

essentially less bleeding without appreciable diminution of the tumors in 5—42 per cent. There was notably shrinking of the tumors in 4—33 per cent. So that he concludes that 75 per cent. gave evidence of improvement. Our author also gives the results obtained in 14 cases of chronic hypertrophy of the uterus, 8 of which he classes as examples of subinvolution, 5 as examples of chronic inflammation or metritis, and 1 as exfoliative endometritis (dysmenorrhœa membranacea). In those 14 cases the chief effect noticed was sooner or later diminution of the sanguineous discharge at the periods; the time required for the treatment varied from one to six weeks in cases of subinvolution, to several months in cases of chronic metritis. If decided advantage did not occur in these cases after 50—60 injections, Leopold thinks that it is useless to continue longer injecting the ergotin, and other means must be tried. In the majority of Leopold's cases the ergotin injection was accompanied by a general improvement in the patient's general condition, strength, and appetite. The particulars of the sections of the uteri of two patients who had been treated for fibroid tumor by this method, and who had died from disease in no way connected with the fibroid tumors, are then given. The examination of these tumors unmistakably prove, according to Leopold, that under the use of the ergot the tumors had been compressed, their vascular supply very largely cut off, the tumors themselves rendered anæmic, whilst fatty degeneration had commenced in their muscular elements.—*Edinburgh Med. Journ.*

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, beginning this week with mixtures for diseases of the respiratory organs. The abbreviations used are O. D. P. (Out-Door Dept. of Bellevue Hospital); Inf. H., (Infant's Hospital); H. I. H., (Hart's Island Hospital); B. H., (Bellevue Hospital); C. H., (Charity Hospital); Ins. As., (Insane Asylum).

MIXTURES FOR DISEASES OF THE RESPIRATORY ORGANS.

1. *Cough Mixture* (O. D. P.)

R Syr. Tolut.....	}	aa fl. 3 1
" Pruni Virg.....		
Tinct. Hyoscyami.....		
Spts. Ætheris Co.....		
Aquæ.....		

Mix. Dose: a Teaspoonful. (*Dr. Janeway.*)

2. *Cough Mixture for Adults* (Inf. H.)

R Ammonii Chloridi.....	fl. 1
Spts. Ætheris Co.....	fl. 6
Syr. Pruni Virg.....	fl. 2
Aquæ q. s. ad.....	fl. 4

Mix. Dose: a teaspoonful.

3. *Cough Mixture for Infants* (Inf. H.)

R Tinct. Opii Camph.....	
Spts. Ammon. Arom.....	aa fl. 3 1
Ext. Ipecac. Fl.....	fl. 1 1/2
Syr. Pruni Virgin.....	fl. 1
Aquæ q. s. ad.....	fl. 3 3

Mix. Dose: a teaspoonful

4. *Mist. Acidi Hydrobromici*

R Acid Hydrobrom. dil 34 7.....	fl. 3 1/2
Spts. Chloroformi.....	m. 20
Syr. Scillæ.....	fl. 3 1
Aquæ, q. s. ad.....	fl. 3 1

Mix. One dose: to be taken twice or thrice daily, for Cough.

5. *Emulsio Expectorans* (H. I. H.)

R Morphine Sulph.....	grs. 16
Syr Scillæ.....	
" Ipecac.....	aa fl. 3 16
" Tolut.....	
" Pruni Virg.....	aa fl. 3 12
Fr. Benz. Co.....	
" Sanguinalis.....	aa fl. 3 4
Aquæ.....	fl. 3 6

Mix. Dose: a teaspoonful

6. *Mist. Ammonii Carbonatis* (O. D. P.)

R Ammonii Carbonatis.....	fl. 3 1/2
Syr. Senegæ.....	fl. 3 4
" Ipecac.....	fl. 3 2
" Tolut.....	fl. 3 4
Ext. Glycyrrh.....	3 1/2
Aquæ Cinnam. q. s. ad.....	fl. 3 4

Mix. Dose: a teaspoonful for children. (*Dr. Bos-*

7. *Mist. Ammonii Chloridi* (O. D. P.)

R Ammonii Chloridi.....	3 1/2
Potassii Chlorat.....	grs. 40
Syr. Senegæ.....	fl. 3 4
" Ipecac.....	fl. 3 3
" Tolut.....	fl. 3 5
Ext. Glycyrrhizæ.....	3 1
Aquæ Cinnam. q. s. ad.....	fl. 3 4

Mix. Dose: a teaspoonful for children. (*Dr. Bos-*

8. *Mistura "Astrucii"* (B. H., C. H.)

R Spiritus Æther. Co.....	
Liquor. Morph. Sulph. (U. S.)..	aa fl. 3 1

Mix. Dose: from one teaspoonful to a tablespoonful.

9. *Mistura "Fronckii"* (O. D. P.)

R Ammonii Carboni.....	grs. 10
Syr Ipecac.....	fl. 3 1 1/2
Tinct. Opii Camph.....	fl. 3 1
Syr. Pruni Virg.....	fl. 3 1/2
Aquæ q. s. ad.....	fl. 3 2

Mix. Dose: a teaspoonful for children. (*Dr. Robinson.*)

10. *Mist. Expectorans* (C. H.)

R Tinct. Sanguinalis.....	fl. 3 1
Tinct. Opii Camph.....	
Syr. Scillæ.....	
Syr. Tolut.....	aa fl. 3 2
Aquæ q. s. ad.....	fl. 3 2

Mix.—Dose: a teaspoonful.

11. *Mist. Expectorans* (Ins. As.)

R Spts. Ætheris Co.....	}	aa p. 6
Syr. Ipecac.....		
Tinct. Opii Camph.....		
Aquæ.....		

Mix. Dose: a teaspoonful.

12. *Mist. Expectorans* (O. D. P.).

R. Syr. Scillæ Co. aa fl. 1
 " Ipecac. fl. 1
 Syrupi. fl. 1
 Mix. Dose: a teaspoonful, for children (Dr. Sweeney).

13. *Mist. Expect. for Children* (O. D. P.).

R. Syr. Senegæ
 " Pruni Virg.
 " Acacia aa fl. 3 1
 Mix. Dose: a teaspoonful. (Dr. Holgate.)

14. *Mist. Expectorans* (O. D. P.).

R. Ammon. Carbon. grs. 10.
 Ext. Scillæ Fl.
 " Senegæ Fl.
 Tinct. Tolut. aa fl. 7 2
 Aquæ fl. 1 1
 Syrupi q. s. ad. fl. 2
 Mix. Dose: a teaspoonful.

15. *Mist. Expectorans* (Stokes').

R. Ammonii Carbon. grs. 32
 Ext. Senegæ Fl.
 Ext. Scillæ Fl. aa fl. 3 1
 Tinct. Opi Camph. fl. 6
 Aquæ fl. 1 1
 Syrup. Tolut. q. s. ad. fl. 3 4
 Mix. Dose: a teaspoonful.

CORRESPONDENCE.

CONGENITAL ANAL STRICTURE AND ABNORMITY—
 ONE YEAR WITHOUT A MOVEMENT OF THE BOW-
 ELS—SUCCESSFUL SURGICAL TREATMENT—BY J.
 C. HALL, M.D., OF MACKINNAVILLE, MISS.

Editors Hospital Gazette.

The following is a brief summary of a case recently communicated to me by letter from my friend Dr. Hall, of Miss. It is of so much interest that, without asking his consent, I have sent it to you for publication.

Yours truly,

F. H. HAMILTON.

James W. Gales, aged 18 months, a male negro child, was brought to Dr. Hall for his advice. It was ascertained that prior to the occurrence of the constipation the child had a troublesome diarrhoea which was finally controlled by opiates and astringents, and from that time, a period of more than one year, it had been found impossible to move the bowels, although the most active purgatives and enemata had been employed. The child was somewhat emaciated, and the entire length of the colon was filled with hardened feces.

On examination, Dr. Hall discovered *first*, a cutaneous band extending across the anal opening, from the median line, or raphe, in front of the anus, to a point just in front of the coccyx posteriorly, about half an inch in width by one quarter of an inch in thickness. This did not directly obstruct the anus, but lay over it like a bridge. This band was immediately cut by Dr. Hall. He now found that the anus was so nearly closed at the external sphincter that he could only with difficulty introduce a female catheter. He then introduced forcibly the index finger of the right hand. A similar constriction was found at the internal sphincter—

the sphincter feeling like a diaphragm, with a small hole in its centre. Through this the finger was also passed, and the sphincter was thoroughly divulsed.

The child was sent home with instructions to the mother to employ soap and water injections freely and to give cod-liver oil internally.

During the succeeding four days large masses of hardened and dark-colored feces came away, which was followed by a diarrhoea lasting two days, when the child's recovery was pronounced complete by the mother, and the child passed from under the doctor's observation.

NEWS ITEMS AND NOTES.

The Jefferson Medical College Commencement.—At the annual meeting of the Alumni Association of Jefferson College, held on Tuesday noon, March, 11th, an election for officers resulted as follows: President—Professor Samuel D. Gross, M.D., L. L. D. Vice Presidents—Addinell Hewson, M.D.; Edward Caswell, M.D.; Elwood Wilson, M.D.; P. S. Conner, M.D. Treasurer—Nathan Hatfield, M.D. Recording Secretary—Thomas H. Andrews. Corresponding Secretary—Richard J. Dunglison.

The annual address before the Alumni Association of Jefferson Medical College was delivered on the evening of the same day, in the lecture room of the college hospital, by Dr. Edward T. Caswell, of Providence, R. I., in the presence of a very large audience.

Dr. Gross, in a few remarks, introduced Dr. Caswell, the subject of whose address was, "The Present Phase of the Alcohol Question from a Medical Point of View."

The fifty-fourth annual commencement of Jefferson Medical College was held in the Philadelphia Academy of Music on Wednesday morning, March 12th. The Rev. Thomas F. Davies opened the exercises with prayer, after which the degree of Doctor of Medicine was conferred upon 196 graduates.

The following prizes were then awarded by the dean of the faculty.

A prize of \$100, by Henry C. Lea, Esq., for the best thesis, to Henry C. Boenning, of Pennsylvania, with honorable mention of the theses of Frank E. Stewart, of New York; William L. Kneidler, of Pennsylvania; Carlos M. Brown, of California; Monroe Bond, of New Hampshire, and William S. Hoy, of West Virginia.

A prize of \$50 for the best essay on a subject pertaining to surgery, to Bernard R. Lee, of Pennsylvania, with honorable mention of the theses of Norman H. Chapman, of Illinois, and Henry Nes, of Pennsylvania.

A prize of \$50 for the best anatomical preparation, to William L. Kneenler, of Pennsylvania.

A prize of \$50, for the best essay on a subject pertaining to obstetrics, &c., to David C. Lichtler, of Virginia, with honorable mention of the thesis of Howard F. Hansell, of Pennsylvania.

A prize of \$50, for the best essay on a subject pertaining to materia medica and therapeutics, to Louis Weiss, of Colorado, with honorable mention of the thesis of Albert T. Poffenberger, of Pennsylvania.

A prize of \$50, for the best essay on a subject

pertaining to physiology, to William C. Cahall, of Delaware.

A prize of \$50, for the best essay on a subject pertaining to the theory and practice of medicine, to John L. Yard, of Pennsylvania, with honorable mention of the thesis of Wm. L. Rodman, of Kentucky.

A prize of \$50, for the best essay on a subject pertaining to chemistry, to George W. Cram, of Pennsylvania, with honorable mention of the thesis of James R. Duggan, of Georgia.

A prize of a gold medal by the demonstrator of surgery, for excellence in bandaging, to Lawrence F. Flick, of Pennsylvania, with honorable mention of G. A. Scroggs, of Ohio.

A prize of a gold medal, by R. J. Levis, M.D., for the best report of his surgical clinic at the Pennsylvania Hospital, to Chas. M. Gandy, of New Jersey, with honorable mention of Norman H. Chapman, of Illinois; Addinell Hewson, Jr., Bernrad R. Lee and William H. Richter, of Pennsylvania.

After the delivery of the class valedictory by George T. McCord the valedictory address was read by Professor J. Aitken Meigs, professor of the Institutes of Medicine and Medical Jurisprudence. The address was a novelty of its kind, being entirely in verse, of classic ring.

Philadelphia Woman's Medical College Commencement.—The annual commencement was held in Association Hall, on Thursday, March 13th. The exercises were opened with a prayer by the Rev. Dr. D. O. Kellog. T. Morris Perot, Esq., president of the board of corporators conferred degrees upon twenty graduates. The degree of M.D., was also conferred upon Rachel L. Bodley, A.M., the Dean of the College. The valedictory address was delivered by Prof. Clara Marshall, M.D. The prize of \$50 for the best report of the lectures during the past term was awarded equally to Anna S. Kugler and Louisa Schneider, both of Pa.

A Mother at Twelve Years of Age.—In a recent case (Reg. v. Dean) of a criminal assault upon a girl under twelve years of age, tried before Mr. Day, Q.C., sitting as commissioner, it was proved in evidence that the girl had been delivered of a full-grown child, which is still living, at the age of twelve years and one month. The prisoner, who was the girl's stepfather, was convicted of the felony, and sentenced to ten years' penal servitude. It is stated that with the exception of two anonymous cases quoted in Taylor's work on Medical Jurisprudence, this is the earliest age of delivery recorded as having occurred in England.

Bogus Diplomas.—The Phila. correspondent of the *Boston Med. Jour.* writes:—There are in this city several institutions which have been doing a good business by granting medical and other degrees *in absentia*. This diploma-selling has become notorious, and has had the effect of casting discredit abroad upon Philadelphia colleges in general, to the great injury particularly of the University of Pennsylvania, whose name has been closely copied in the titles, "The University of Philadelphia," and "The American University." Legislative committees have repeatedly investigated the charges, and indeed a resolution was finally passed revoking their

charters, but the supreme court of the State decided that the legislature had no right to rescind these charters, as this can only be done through the courts. Within the last week *quo warranto* proceedings have been instituted, therefore, in our courts, and there is now a determination to accomplish something decisive that shall at last uproot this evil. The present mayor of Philadelphia, Mr. Stokely, has done much to abate this nuisance by publishing circulars describing the character of these institutions, which are sent out in response to inquiries that are being constantly received from England and the Continent particularly.

Chastisements in Schools.—At an inquiry recently held into the death of a little girl, aged ten years, who lived in Bromley-by-Bow, and died on Christmas-day, it appeared the deceased child attended St. Paul's Board School; and, according to her own statement, which was confirmed by the evidence of another little girl, she was struck upon the head, twelve months ago, with a "pointer" by one of the teachers. She was taken to the London Hospital, and treated at that institution for concussion of the brain for four months. She subsequently lost her eyesight, and lingered until the 25th ultimo, when she died. The medical testimony was to the effect that death was due to effusion of serum into the ventricles of the brain from natural causes, accelerated by the blow inflicted by the teacher. The jury returned a verdict in accordance with the evidence.

BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 34. Week ended March 5th, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.

Washington, March 5th, 1879.

Boston.—Week ended March 1st. Deaths from all cases, 145, an annual ratio of 21 per 1000 of the population; 28 cases of scarlet fever, 2 deaths; 23 cases of diphtheria, 13 deaths. Enteric fever caused 2 deaths, bronchitis 3, pneumonia 18.

Providence.—Week ended March 1. Total deaths, 53. An. ratio, 27.5; 10 deaths from acute pulmonary diseases, 11 from phthisis, 1 from diphtheria. Very slight prevalence of zymotic disease.

New York.—Week ended March 1. Total deaths, 600. An. ratio, 28.6. Enteric fever caused 2 deaths, scarlet fever 44, diphtheria 21, croup 12, whooping cough 15, bronchitis 35, pneumonia 74, phthisis 97.

Brooklyn.—Week ended March 1. Total deaths 224. An. ratio, 20.63; 82 cases of scarlet fever, 9 deaths; 26 cases of diphtheria, 9 deaths. Croup caused 9 deaths, acute pulmonary diseases, 54; phthisis 36.

Buffalo.—Week ended March 1. Total deaths, 38. An. ratio, 14. Scarlet fever caused 3 deaths, enteric fever 3, croup 4.

Rochester.—Month ended March 1. Total deaths 103. An. ratio, 14. Diphtheria caused 12 deaths, acute pulmonary diseases 10. One case of small-pox; the patient came direct from Havana, where

the disease is prevalent, and was taken sick on the first day after his arrival at Rochester.

Pittsburgh.—Week ended March 1. Total deaths 51. An. ratio, 18. Enteric fever caused 2 deaths, diphtheria 2, acute pulmonary diseases, 16.

Baltimore.—Week ended March 1. Total deaths 145. An. ratio, 20.38. Enteric fever caused 1 death, scarlet fever 3, diphtheria 6, whooping-cough 2, acute pulmonary diseases 30, phthisis 21.

District of Columbia.—Week ended March 1. Total deaths 93. An. ratio, 30. Scarlet fever caused 4 deaths, diphtheria 1, acute pulmonary diseases 20, phthisis 11.

Hudson Co., N. J.—Week ended March 1. Total deaths 70. An. ratio, 19.2. Diphtheria caused 3 deaths, scarlet fever 1, acute lung diseases 9, phthisis 6.

Philadelphia.—Week ended March 1. Total deaths 308. An. ratio, 19.5. Enteric fever caused 8 deaths, scarlet fever 9, diphtheria 6.

Richmond.—Week ended March 1. Total deaths 29. An. ratio, 19.1. Scarlet fever caused 3 deaths, enteric fever 1, pneumonia 6, phthisis 3.

Chicago.—Week ended March 1. Total deaths 107. An. ratio, 12. Scarlet fever caused 7 deaths, diphtheria 5, enteric fever 3.

Louisville.—Two weeks ended March 1. Total deaths 108. An. ratio, 17.5. Diphtheria caused 2 deaths, scarlet fever 1, enteric fever 3, acute lung diseases 27.

Savannah.—Two weeks ended Feb. 28. Total deaths 38 (9 whites, 29 colored.) An. ratio for whole population, 35. Diphtheria caused 1 death, enteric fever 1, diarrhoea 3.

Mobile.—Week ended March 1. Total deaths 11. An. ratio 15. No deaths from zymotic disease reported.

San Francisco.—Week ended Feb. 21. Total deaths 88. An. ratio, 15. Diphtheria caused 3 deaths, acute pulmonary diseases 12, phthisis 11.

Hurani.—Week ended March 1. Yellow fever 3 deaths, small pox 10.

Pernambuco.—Four weeks ended Feb. 6. Total deaths 462. An. ratio, 47.5. Small pox caused 127 deaths, yellow fever 7.

Rio de Janeiro.—Jan. 18th to 31st. Total deaths 429. An. ratio, 44. Yellow fever caused 41 deaths, small pox, 26 "pernicious" fever 20. Yellow fever prevails extensively among the shipping.

Montreal.—Three weeks ended Feb. 22. Total deaths, 215. An. ratio, 31. Small pox caused 38 deaths, diphtheria 9. Small-pox has been very prevalent, causing 728 deaths in the last year, but is now diminishing under the efficient system of vaccination recently introduced.

Gt. Britain.—Two weeks ended Feb. 15th. The average death rate in the 23 large towns was 27.5. Small-pox caused 37 deaths in London, 49 in Dublin.

Official reports of European medical officers in China show conclusively that true "bubonic plague" has prevailed extensively in that Empire during the thirty years preceding 1873, when it was supposed to be wholly extinct. The reports also show that owing to the meagre facilities for communication with central Asia virulent epidemics may ravage extensive districts of that country without any knowledge of their existence extending to Europe. The reports present records of the disease having pre-

vailed in the Province of Yunnan, to which it seems to have been introduced from Burmah, during twenty of the thirty years in question, varying in intensity in different parts of the Province, and in different years. The appearance of the disease was coincident with the breaking out of the rebellion against the Imperial Government, which was longer maintained, and suppressed with more violent measures, in Yunnan than in any other of the other provinces; conditions which undoubtedly contributed greatly to its virulence, as did also the superstitious practice of refusing to bury the dead, who are exposed on a bier to the sun till completely decomposed. The plague was very prevalent in Yunnan in 1871-2-3, and in the latter year suddenly re-appeared in Mesopotamia and Persia, gradually extending its area until in 1877 it reached the shores of the Caspian sea, prevailing especially at the town of Restch, which has a direct trade with Astrakan. In May and November, 1877, a fever of intermittent type, accompanied with glandular swellings prevailed in the port of Astrakan and in Wetlyanka, and other villages of that province, and in November, 1878, a similar affection again appeared at Wetlyanka; few deaths had occurred up to this time, but about Dec'r. 1st, the disease assumed the malignant character that has marked the present outbreak. The Report of the Russian Medical Service of the Interior for 1877, which has just been made public, announces that 241 cases of Siberian plague were reported to the Government during the year, the mortality being 21%; the principal outbreaks occurred in the Provinces of Viatka and Tchernigow, which are at a considerable distance from each other, and were contemporaneous with, or occurred soon after, the virulent prevalence of the disease in Persia.

From the above facts, which have been obtained from official sources, and are in the main well attested, it seems proper to conclude that instead of the late outbreak being due to the spontaneous regeneration of the virus of the plague in the Valley of the Volga, or at the farthest in Persia, the disease was re-introduced from China into Persia, and thence to Russia, local conditions in each instance probably favoring its development. Of these conditions no authentic account will be obtained until the International Commission of Experts who are visiting the infected district make their report. The return of cold weather, combined with the stringent measures adopted by the Government, seem to have confined the late violent outbreak to the limited district where it first appeared. The American Ministers to Austria and to Russia report that the disease has manifested such an extremely virulent and contagious character that great alarm exists in the whole of Eastern Europe, and urge upon the Government the necessity of taking measures to prevent the possibility of the introduction of the disease into the United States. The measures already taken by this Government for preventing the importation of goods from the infected districts, except under proper precautions, are, for the present, considered sufficient for this purpose, especially if the ports of entry are kept free from the unsanitary conditions that favor the spread of epidemic disease.

JNO. M. WOODWORTH, Surgeon-General,
U. S. Marine Hospital Service.

LECTURES.

Delivered before the Medical Department of the University of
 Pennsylvania.

Professor of Clinical Gynecology in the University of Pennsylvania.
(Reported for THE HOSPITAL Gynecology)

The womb in its natural position floats like a ship at anchor, and just as the ship is frozen in during winter, so pelvic peritonitis and cellulitis bind down the womb, plasma is thrown out all around, changing the broad ligament into a board-like consistency, and securely fixing the womb. Sometimes, as in the present case, a hard body will be felt in the neighborhood of the womb. This is generally an agglutination of the intestines. Nature, you see, is always alive to an emergency, and prepared to protect herself. She sees an inflammation beginning near the womb, and all the tissues giving

way before it. Immediately she sets to work to form a barrier to its progress. She sets up a process of agglutination between the intestines, causes them to become adherent to the margin of the pelvic peritoneum, and so prevents the inflammation from spreading.

How is the inflammation carried from the womb to the adjacent tissues, you will ask me. It is not known whether the inflammation is phlegmonous or septicemic. It may be either. If it be septic the inflammatory materials are absorbed and so transplanted. If the inflammation be frank the process of transplantation is by extension.

Passing the finger into the vagina, in cases of this disease, its walls are found to be hot and dry, while the cervix of the womb is immovable and tender to the touch. The roof of the vagina is hard and not flaccid; feels in fact as if plaster-of-Paris had been allowed to harden round the womb. When one is not expert in such matters it is very easy to be deceived into believing that the hard body felt above the vagina is a uterine fibroid, but more careful examination will show that the hardness is thin and not like that of a thick, large tumor.

Always make it a point to find out whether the womb is fixed or movable. If it is fixed, you may with propriety suspect the existence of pelvic peritonitis and cellulitis.

If you cannot abort the attack you must take up the treatment regularly, and the first two and most important indications are: (1), To stop the pain, and (2) to prevent the formation of pus. The medicines demanded are full doses of opium and bromide of potassium together with from thirty to forty grains of quinia daily. In addition to this you should paint the abdomen with iodine and put on a poultice. Now some persons use as many as half a dozen poultices daily. The reason of this is that the poultices, being uncovered, dry up rapidly. If the poultice is covered with oiled silk, or greased brown paper, one poultice will remain soft for twenty-four hours. All this time you must be keeping your patient under the influence of large doses of quinia and morphia. Quinia contracts the capillaries, lessens the flow of blood to the womb, and also inhibits the migration and transformation of white corpuscles into pus corpuscles. If the woman be plethoric the morphia may be given by the mouth with neutral mixtures and wine of ipecac, or in some other fever mixture. In some cases tonics are demanded. Occasionally the application of belladonna and blue ointment locally is of benefit.

The disease ends either by resolution, or in the secretion of pus. When pus is formed the tumor usually becomes a little softer and this condition of things is accompanied by chills, night-sweats, and hectic fever, although these symptoms cannot be regarded as in any way pathognomonic. In nine out of ten cases the end is by resolution. When pus is formed the condition immediately becomes troublesome.

If the sickness, therefore, lasts for more than a week, and the local tenderness increases, apply the hot water douche to the tender cervix. Then you will very often find that after a few days the pain and inflammation subside but that there is still some fever in the afternoon. Now is the time to apply

flying blisters. Begin with a good-sized one applied over the sore iliac region. In some cases this will be all that is required. When the pelvic tumor still remains, however, put another blister on over the womb and then another over the other side of the abdomen and then begin over again, so going the rounds and keeping the skin raw in spots until you have gained the resolution of the exudation. In some rebellious cases of pelvic peritonitis a hard tumor-like mass may exist for some time in the abdomen. I say pelvic peritonitis because cellular tissue would not harden in this way but would degenerate and fall into pus. When the cellulitis preponderates you are more likely to have pus formed, and instead of the chronic local hardness you have a chill and high pulse.

Very often the pulse will have fallen below 100 and the temperature will have almost reached the normal when a sudden chill will supervene and the patient will complain of pain in the opposite iliac region. This is quite common as a sequel of abortion and in the puerperal state, but is rare after operations. When this metastasis occurs the only thing to do is to begin all over again with large doses of quinia and of morphia, give ten grains of quinia at a time, and, if necessary, from $\frac{1}{4}$ to $\frac{1}{3}$ of a grain of morphia hypodermically. This second attack will generally be found to be more manageable than the first.

When pus is formed, tonics are demanded, and among them iron. Never give iron, however, in the early stages of the disease as it is only too liable to send the blood to the womb and so increase the already inflamed condition of that organ. Never keep the poultices on after the formation of pus has begun. Some authorities hold that poultices tend to the formation of pus.

It is in these later stages of the disease that muriate of ammonia is a very excellent remedy; so, too, is aconite. I usually prescribe the following:

R. Mist. glycyrrhizæ comp., f ʒvj
Ammonii chlorid., ʒij.
Hydrarg. chloridi corrosivi, gr. j.
M. Tinct. aconiti radiciſs., gtt. xxiv.

S.—A tablespoonful in water every six hours.

Suppose that you are convinced that pus has formed and that you are unable to secure its absorption by medicinal means. What do you do now? Examine the vagina and see if you can detect any soft point which fluctuates, or pits upon pressure. The most common site for the pointing of pus formed, as a result of pelvic cellulitis and peritonitis, is the vagina, the next most common site is the rectum. Of these two the vagina is the more desirable. Occasionally the pus empties into the bladder.

When the spot has been found where the abscess is beginning to point make an incision large enough to admit of a free drain of pus. Be as sure as you can be, however, before you cut an opening that all the small abscesses, if such there be, have melted down to form one large one. If the abscess is very slow in pointing you will have a perfect right to search for the best point at which to introduce the aspirating needle. In this way you may empty as many separate collections of pus as you can find. After aspirating inject the cavities with dilute

iodine—one part of iodine to nine parts of water; or you may use, instead, a five per cent. solution of carbolic acid. In some cases it is well to begin at first with a two per cent. solution.

When you find it necessary to aspirate the abscess through the vaginal walls, it is well to make but a small opening with the knife into the tissues, and then to pass a grooved director or a uterine dilator into the opening and enlarge it. In this way you will avoid the blood-vessels. After aspirating its contents keep the abscess open by inserting a drainage tube, or by making daily injections into it of disinfectant solutions, otherwise you will find that there is a tendency on the part of these abscesses to become chronic. Abscesses form in only about one case out of ten of pelvic peritonitis and cellulitis. Indeed, I myself have not had even so large a percentage as this.

On the other hand if the result of the active inflammation be a hard tumor instead of an abscess, the inflammatory process may be relighted at every menstrual period, and I have seen several women waste away to mere shadows from this very cause. Therefore always endeavor to bring about resolution as soon as possible in these cases. Otherwise, and if the case become one of a chronic nature, the woman is likely to become sterile, a false membrane being thrown out over the entrance of the oviducts.

(When speaking of the causes of pelvic peritonitis and cellulitis, I overlooked one very important cause of the condition, viz., gonorrhœa in the female. This disease is more likely to produce perimetritis than parametritis and sterility is very often brought on by it, and as a consequence, of the changes occurring around the womb).

When pus forms, the destruction of tissue is usually very great.

I remember being present at a post-mortem examination made at Bellevue Hospital some twelve years ago, and I never saw such destruction of tissue as had been produced by the disease in that instance. It was utterly impossible to discover an ovary, or broad ligament, and we had to pass a sound up the vagina to discover the womb.

Sometimes abscesses are formed without the knowledge of the physician. If an abscess opens into the rectum, the result will be a collapse with sudden stools. If an abscess bursts into the bladder, the results are very serious, since the urine finds its way into the pus-containing cavity. The prognosis is also grave when an abscess opens into the small intestines. In some cases I have known the pus from an abscess to dissect its way into the tissues above the pubis and open in the groin.

SPINAL PARALYSIS OF INFANTS.

BY

WM. T. PLANT, M.D.

Professor of Diseases of Children—College of Medicine of Syracuse University.

GENTLEMEN:—The other day I had occasion to call your attention to a case of hemiplegic paralysis in an old person, the result, probably, of a cerebral hemorrhage. I think I alluded at that time to the frequency of palsy in aging people from the giving way of the degenerated walls of cerebral arteries.

I told you, too, that our prognosis in these cases is grave. There are very few complete recoveries; often the cases are speedily fatal.

This particular form of paralysis, so frequent among the old, hardly ever occurs to children. They may, of course, become palsied from injuries to the head, from hydrocephalus, from cerebral tumors, from any cause that will produce cerebral pressure; but pressure and consequent paralysis from the spontaneous rupture of cerebral vessels is a very rare event in the young. But there is a form of paralysis peculiar to children. It is not cerebral but spinal in its origin. It is called—*Infantile Spinal Paralysis*. "Essential Paralysis" is another name often applied to it—essential in the sense of being independent of any other disease or morbid condition—functional.

We will now examine the symptoms and course of this curious disease. It occurs between the ages of six months and three years. Boys and girls are about equally amenable to it, for one statistician says it is more common in boys; another in girls; strike a balance between them and the result is an equal share to either sex. And indeed I can see no reason why either sex should enjoy an immunity over the other.

The onset is sudden. It seems to attack by preference children who have been healthy and robust, though puny infants are not necessarily exempt. The child is first observed to be feverish, and there are, of course, the usual accompaniments of fever, such as thirst, anorexia, hot skin, fast breathing, frequent pulse and heightened temperature. Perhaps there is delirium or convulsions. This stage of fever is very variable in its degree and duration. It may be so intense as to cause anxiety; it may be so light as scarcely to be noticed. In some instances it is quite absent, or, if present, it is overlooked. It may last from an hour or two to two weeks. Probably its average duration is between two and seven days. There is nothing at this time to indicate the character of the trouble impending, nor does there seem to be much relation between the degree and duration of the fever and the extent and duration of the palsy. A physician called in at this stage is likely to pronounce it a remittent or typhoid fever.

At length, as the fever declines, the discovery is made that the child does not move one or more of its limbs. Where there has been no febrile stage the paralysis is the first thing noticed, occurring suddenly in the night or even in mid-day.

The spinal palsy of infants is, at the first, all that it is to be. It may and probably will decrease, but it never increases as cerebral paralyses are so apt to do. It never extends to new muscles or becomes more complete in those already affected. It is never fatal, as the palsies of the old often are. Just at the first all the limbs are affected—usually so, at least, but some of them rapidly regain their power in a few hours after. In one or both lower limbs, or perhaps in an arm and a leg, the paralysis remains. The upper limbs are seldom affected alone. When they are involved the degree of akinesis in them is less than in the legs and they regain their power sooner. The converse is true in paralysis of cerebral origin.

As a rule, the palsy does not extend to all the

muscles of a limb but only to certain groups, or to certain muscles of these groups. In the leg, for instance, the flexors of the foot may be palsied while the extensors retain their power. It is plain that there will result from the continuous action of the great gastrocnemius and its allies a permanent extension of the foot—a talipes equinus. Other deformities result from loss of power in other muscles. I think club-foot when not congenital is usually the sequence of spinal palsy.

Fortunately, neither the bladder nor rectum are involved, nor does the skin sensibility extend to the muscles of the trunk or face.

For the most part this disease is but temporary in duration and tends to spontaneous recovery, which is often complete in 3 or 4 weeks. Not all cases result so favorably. In these latter some muscles may fully regain their power in a short time while others exhibit no improvement.

If the powerlessness remains longer than a month or two, the muscles begin to waste perceptibly. Here begins the atrophic stage. The entire muscle comes to be small and flaccid because each individual fibre undergoes degenerative changes. The transverse markings disappear and the substance of the fibre suffers a granular or a fatty transformation. There is a diminution—perhaps a complete loss of electro-muscular contractility. Not only this, the nutrition of the entire limb is apt to suffer. The arteries seem to become smaller and the circulation is weaker than before. There is a marked fall in the temperature of the limb, varying from two to ten degrees. Even the bones are retarded in their growth. A limb long paralyzed is perceptibly shorter than its fellow. The ligaments share in the atrophic changes, becoming so lax, often, that the articular ends are widely separated by the mere weight of the limb. Spontaneous luxation has even occurred from this cause. The shoulder joint, a free-and-easy joint at best, is especially prone to this accident.

Aside from the palsy the condition of the child is satisfactory. The general health is good; the growth of the rest of the body advances normally and the mind is unaffected. In fact, the inaptitude for the active sports of youth engendered by the lameness is often conducive to a superior scholarship.

Nature and Cause.—Until recently this affection was regarded as functional or "essential"; but as the result of late microscopic research, it has been transferred to the lengthening list of organic diseases. Undoubtedly it depends on a material change in the motor tract of the spinal cord.

A number of examinations have been made of the bodies of those who had long had this form of palsy. Quite uniformly there have been found atrophy and sclerosis of the anterior and antero-lateral columns of the cord. These changes have been confined, usually at least, to the lower part of the cord when only the legs have been paralyzed; in the cervical enlargement also if the arms have been affected. These appearances of degeneration are such as we might expect to result from inflammation of the parts—a limited myelitis. It would seem probable that synchronously with the stage of fever and perhaps causing it, there is an active congestion of the anterior part of the cord with or without inflammation. If the paralysis disappears in 3 or 4 weeks

as it does in most instances, it may be assumed, perhaps, that there was congestion only; but if permanent, that congestion advanced to inflammation and consequent degeneration of nerve cells. We see then, that the term "essential" is not applicable to this affection, since it is attended by material and demonstrable changes in the spinal cord.

But what should cause a sudden congestion and inflammation of the spine in children at a certain age while others are exempt? I do not know. The causes assigned are dentition, worms, exposure to cold, dietetic excesses. But older children take cold, have worms and gourmandize without having spinal palsy. One fact is noteworthy. Almost all these cases occur during the period of the first dentition and that suggests some close connection with teething. Yet no such connection can be shown. The disease often drops down upon a child during those periods of quiet that precede and follow the evolution of each group of teeth. Dentition cannot then, be held accountable for all these cases. But at this period, other changes quite as important as teething are taking place in the organism. It is a time of very active development in other parts of the body. The entire nervous system is peculiarly susceptible of impressions and it is not difficult to believe that spinal palsy is connected in some way with and is the outcome of this state of nervous erethism.

Treatment.—If the initiatory fever is high aconite in minute and frequent doses will be in place, with tepid bathing. And as in other cases where a child is feverish, apparent causes of irritation should be relieved. If the gums are swollen by coming teeth; if constipation is present; if there are evidences of worms in the bowels; if there is any want of activity in the digestive processes, you will know what to do.

As soon as attention is drawn to the spine by the discovery of paralysis, your thought will naturally turn to those agents whose physiological effect is to diminish the blood supply of the cord.

Chief among those at present known are ergot and ergotine, and less certainly, belladonna and potassium bromide and iodide. Possibly the hyperæmia of the cord may be lessened by rubefacients to the spine. Tincture of iodine considerably diluted is a good agent for this purpose. The following is a good rubefacient lotion,

R Spiritus rectificat,
Acidi acetici,

M Tr. capsici, partes equales.

Sig.—Wet a cotton cloth with it and lay along the spine.

The application of leeches may also be of service.

After a little time—two to three weeks—if the palsied muscles are not steadily regaining their power, resort should be had to those agents that stimulate muscular contractility. Chief among these are strychnia and electricity. Of the former, I would commence with a small dose, not exceeding the fiftieth of a grain to a child of two years. Remember that half a grain has killed a grown person. The quantity may be increased gradually and guardedly.

In electricity we have a most valuable means of restoring lost power to muscles, as well as of prognosis. It has been found that when the muscle

cannot be made to respond to galvanic stimulation, the palsy is generally irremediable; but that there is strong hope of any muscle in which contraction can be induced. The employment of this agent should not be too long delayed. At first, the sittings should be short—five minutes—and repeated every second day; later, a little longer and daily. Moderate stimulation is the rule. Exhaustion should be avoided.

Where the paralysis is complete, or nearly so, the constant current is to be preferred for "feeble currents from a galvanic battery may act when the strongest Faradic currents fail to do so."

As adjuvant to the above treatment, you will resort to measures that tend to energize the circulation, and increase the blood supply.

I know of none better than the daily employment of the cold douche, with friction. Dashing the limb alternately with ice-cold and hot water is also a powerful stimulant to the circulation. Systematic friction and kneading of the muscles is another way of accomplishing the same end. Between these exercises the limb should be well wrapped in flannel to retain its warmth. As soon as the will has gained any power over the muscles, the child, if old enough, should be encouraged to use them a little each day.

In cases that are at all anæmic, you will not forget the value of iron, cod-liver oil, good food and fresh air.

One means of securing a restoration of the suspended nerve-power is to keep the general nutrition in a vigorous state.

The deformities that occasionally result from a loss of muscular balance will need the aid of orthopædic surgery. A while since my colleague and friend, Prof. R. W. Pease, operated for me with gratifying success on a case of talipes equino-varus that had had its origin some years back in a spinal palsy.

Occasionally tenotomy is necessary in order to secure the full benefits of electricity, the over-stretched muscles responding more readily after they have been liberated.

ORIGINAL ARTICLES.

ACUTE INFLAMMATION OF THE MIDDLE EAR IN SOME OF ITS ANATOMICAL RELATIONS.*

J. S. PROUT, M.D.,
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Earache often passes away spontaneously, but of acute inflammation of the middle ear it is ordinarily the earliest symptom. The mucous membrane of the drum-cavity swells, closing the opening of the Eustachian tube, fluid is poured out into the cavity and finds no means of escape. Hence tension, pressure, pain. Under appropriate treatment, or even without treatment, resolution may take place, with absorption of the effused fluid. But if the fluid continue to accumulate it must either be let out by the surgeon, with relief to tension and pain and often prompt and perfect cure, or it will break through

the drum-membrane, perhaps with relief to the symptoms, or the inflammation may extend to some neighboring part. Because earache is so common and so often passes away spontaneously, it may well be asked do physicians usually feel any alarm at being told that some one has earache. It is too often looked upon as a matter of no consequence. Why should it be otherwise? Let the following history answer this question:

CASE I. A strong healthy man complained on Saturday of an uncomfortable sense of fullness in one of his ears, unaccompanied by pain. On the next day inflation by Politzer's method relieved this discomfort. Wednesday the same condition returned. On examination it was found that he could hear the watch with this ear only $2\frac{1}{2}$ inches, while it was heard at a distance of 84 inches by the other. The case was considered one of simple catarrhal otitis media. Inflation again gave relief, causing the hearing distance to be increased to 4 inches. Two leeches were directed to be applied to the tragus, and the daily inflation of the ear was advised. On Thursday the patient said his ear felt as well as ever. Early Friday morning severe pain came on in the ear which continued unchecked for twenty-four hours, then ceased, and agonizing pain commenced in the corresponding side of the head. About noon on Saturday the drum-membrane, injected and bulged out by fluid in the drum-cavity, was incised, giving exit to pus and blood, but this caused no abatement of the head-pain. This ceased spontaneously next day, Sunday, and the patient lay in a partially unconscious condition until evening, when he died of acute meningitis. A post-mortem examination showed that the inflammatory process had extended from the middle ear through its roof into the cranial cavity.

Resumé: Saturday a sense of fullness without pain; Thursday ear felt as well as ever; Friday morning earache of the most severe kind; Sunday evening death from acute meningitis!

Does the medical man ever encounter anything more dreadful than this? And yet in the beginning there was not even so much as an earache! Every earache should receive early and skilful attention. Life or function may be lost by negligence or delay.

Dr. Koosa reports (*N. Y. Med. Record*, July 7, 1877, p. 417) a case of meningitis following acute purulent inflammation of the middle ear, in which death occurred in about twenty-eight days from the appearance of the aural symptoms. At the end of his communication (p. 419) he adds that "there was lately a case of acute suppuration of the middle ear, at the Manhattan Eye and Ear Hospital, which resulted in death from meningitis, with rupture of one of the ears, distended sinuses, five days after the perforation of the membrana tympani."

Schwartz says that "acute mucous catarrh, without perforation of the drum-membrane, may unexpectedly and rapidly lead, in extremely rare cases, to sopor, convulsions, and death from meningitis (two cases of my own, two of Wendt's)." (*Path. Anatomy of Ear*, Trans. by Green. Boston. Houghton, Osgood & Co., 1878, p. 100.)

It is not my intention to discuss the causes, symptoms, treatment, or results of acute inflammation of the middle ear, but to call attention to some of the

* Read Before the Medical Society of the State of New York, Feb. 5, 1879.

anatomical relations involved, so as to show how it is that life and function are so seriously threatened, and, briefly, what may be done for their preservation by a very simple operative procedure.

It should be borne constantly in mind that this inflammation takes place in a small closed cavity of about half-an-inch in height and width, and one or two lines in depth, in the very closest relation with most important parts. The Eustachian tube is its only natural outlet, while drum-membrane (about as thick normally as very thin letter paper, or gold-beater's skin, according to Henle, about 0.1m. or $\frac{1}{100}$ inch,) separates it from the external auditory canal. It has anterior, posterior, outer and inner walls and a roof and floor.

In its anterior wall, upper part, we find the tympanic opening of the Eustachian tube, above which runs the canal for the tensor tympani muscle. The posterior wall separates the tympanum from the mastoid antrum and cells, and has an opening into the former at its upper part. The outer wall, composed mostly of the drum-membrane, has openings for the entrance and exit of the chorda tympani nerve, a branch of the facial, on its way to join the gustatory or lingual nerve. The inner wall forms the outer wall of the labyrinth, into which there are two openings, the oval window (*fenestra ovalis*) in which the base of the stapes articulates, opening into the vestibule, and the round window (*fenestra rotunda*) closed by the secondary *membrana tympani*, opening into the base of the cochlea. The wall in front of the promontory, a prominence caused by the first turn of the cochlea, covers the canal for the carotid artery, is pierced by many minute openings for vessels and nerves and is sometimes very thin. Above and behind the oval window is the ridge containing the Fallopian canal, in which the facial nerve runs. The upper wall or roof of the middle ear through which blood vessels pass, is always thin and often has defects, and, thus sometimes the cavities of the ear and cranium are separated by mucous membrane and meninges only.

The floor, sometimes wholly membranous, separates the fossa for the jugular vein from the tympanum and is pierced by the tympanic branch of the glosso-pharyngeal nerve, etc.

The mucous membrane of the middle ear extends through the opening in the posterior wall into the mastoid antrum and thence into the mastoid cells, between which and the lateral sinus the bone is often very thin and has been found defective.

Contained in the cavity of the tympanum are the ossicles, on the integrity of the articulations of which depends in a very large degree our power of hearing.

Having thus briefly indicated the channels of communication between the middle ear and the neighboring parts, we are prepared to consider the pathological processes that occur during acute inflammation of a severe grade. We then find that the mucous membrane swells, more or less completely closing the tympanic orifice of the ordinarily permeable Eustachian tube, while at the same time fluid is poured out into the cavity, the containing capacity of which is already much reduced by the swelling of its lining membrane. For this fluid,

which constantly increases in quantity, there is no natural outlet, (the Eustachian tube being closed,) except into the mastoid antrum and cells, from which extension of the inflammation through the bone to the surface or into the lateral sinus may occur. The drum-membrane is weakened by the inflammation of its mucous layer and unless abnormally thickened by previous disease, soon yields to the distending pressure and is perforated, or, as in a case reported by Prof. L. Connor, may slough *en masse*.

Am. Jour. Med. Sciences, Jan. 1878, p. 114.) The sooner perforation occurs the better for the patient, for there is a dangerous tendency to invade neighboring organs: through the roof into the cranial cavity (see Case I.); through one of the openings in the inner wall into the labyrinth, (see Case IV.); into the Fallopian canal causing facial paralysis; into the articulations of the ossicles with loss of one or more of them; into the mastoid cells, etc., etc.

As a rule acute otitis media is not dangerous until the fluid in the drum accumulates in sufficient quantity to cause bulging out of the drum-head. When this yields and the fluid escapes externally an amelioration of the symptoms usually occurs.

But if the inflammatory action runs high and perforation be long delayed, extension to a neighboring part may have already occurred and relief may not follow.

Is it possible to avoid this train of evil results? Not always by any treatment, but the prospect is very much worse when the case is neglected or badly managed. There is no disease that may be so desperately dangerous to life and function, the location of which is so readily reached, and there is no other disease for which operative interference may do so much when it is early and skilful.

When the drum-membrane is injected and the contained fluid is seen to press the membrane outward, nature cannot be safely depended on to work a cure. The surgeon should then interfere by incising the membrane, the early performance of which simple operation is very frequently followed by rapid and complete recovery. (See Case II.)

What then shall be said of the practitioner who takes the fearful responsibility of advising or adopting a let-alone policy?

As already stated it has not been my intention to fully discuss this disease, but to call attention to some of its dangers, to explain how they occur, and how they may, in the great majority of cases, be avoided. In such books as Politzer's *Lehrbuch der Ohrenheilkunde*, Stuttgart, 1878, (perhaps the best recent work on the ear, of which only the first vol. has yet appeared, but the subject of this paper is discussed in it,) Burnett on the ear, Phila., 1877, and Roosa, 4th edition, N. Y., 1878, this subject in respect of causes, treatment, results, is fully discussed.

The following cases will, together with the one already reported, still further illustrate the purpose of this paper.

CASE II.—Some years ago a young man in good general condition came to me early in the forenoon saying that he had been waked up early that morning by sharp pain in one of his ears. I found the drum-membrane injected and pushed out by fluid in the drum cavity. A paracentesis was done, the fluid escaped, and the case recovered so promptly

that it was not necessary to make me a second visit.

CASE III.—On April 11, 1872, my left ear became sensitive with injection of the drum-membrane. On the 13th I was waked up early by earache which a leech applied to the inside of the tragus failed to relieve. 14th. Ear still painful, drum-membrane injected and bulged out—paracentesis was done by my friend, Dr. A Mathewson, giving exit to bloody mucus, but without much immediate relief. 16th. Pain in mastoid region and soreness over whole left side of head, which gradually passed away. The discharge continued twenty-three days and then ceased, leaving the hearing somewhat impaired. The symptoms of commencing mastoid disease were here so well marked that I have no doubt whatever that the early outlet given to the fluid alone prevented the occurrence of serious mastoid complication.

CASE IV.—On May 13, 1878, I was asked to see E. L., æt. 6, in consultation, three weeks after he had been taken sick with scarlatina. After about a week, during which there had been no complaint of pain, free discharge from each ear commenced, which still continued. There was no kidney complication. Each meatus was found full of pus which came from the drum-cavities—a satisfactory examination of the drum-membranes could not be made. He could hear no sound, suffered from no pain. Nineteen days later there was slight right-sided facial paralysis. About the middle of June the right incus came away. Sept. 7. In each ear bare bone can be felt; small pieces have escaped from the right. Nov. 26. There is a loose piece of discolored bone at the bottom of the left external meatus. This was still in the canal surrounded by granulation-tissue five weeks later. He would not allow me to make a careful examination. The facial paralysis still existed, but was less in degree—*hearing was absolutely gone*. There had been no head-symptoms, nor any disturbances of equilibrium. March 1, 1879. There is still loose bone in the external auditory meatus.

In this case, either before or after the rupture of his drum-membranes, the inflammatory process extended to the cochlea and destroyed the organ of Corti. It most probably passed through one of the windows of the inner wall, but as a sequestrum exists in the left ear it is evident that necrosis of more or less of the inner wall of the tympanum occurred. The right facial nerve in its canal was involved at an early period, as was shown by the facial paralysis. As there was no disturbance of equilibrium we may assume that the semi-circular canals were not invaded.

It is, of course, impossible to say that a better result would have been obtained if the ears had been earlier attended to. Unfortunately, nothing occurred to direct attention to them until the discharge commenced.

Cremation.—Is gaining ground on the Continent. The Government of Hamburg has decided to introduce it optionally in this town. The system is to be the same which has been adopted in Gotha.

DRIVING A TRUCK FOR A WEEK WITH A WOUND OF THE BRAIN.—COMPLETE RECOVERY.

BY
CHARLES T. JEWETT, M.D.

T. S., native of Ireland, 30 years of age, called at my office on Aug. 31st, complaining of a severe pain in his head.

I made inquiries of him concerning the cause and the length of time it had existed.

He seemed somewhat bewildered, and all I could learn from him was, that he had been driving a truck in the hot sun and this he thought had given him the "headache."

Pulse 120, skin hot and dry and he seemed like one suffering from the heat. I prescribed the usual remedies and sent him home.

In the evening his father came to me and said T. was no better; in fact the pain was getting worse.

I then ordered leeches to be applied to the temples.

This was done, and ice was kept continually to the head.

Sept. 1st.—I found him somewhat easier but still suffering a good deal of pain.

The bowels were constipated. Ordered a bottle cit. magnesia, which had no effect.

Sept. 2d.—Mrs. S., the mother, called my attention to a blood stain on the pillow; this led me to examine the head more closely, and I found a very small scab in the hair, but could detect no fracture. He said he received a blow on his head during a quarrel nine days before but considered it so trivial that he had not called my attention to it.

As the bowels had not moved, a full dose of Jalap Co. was administered, but without effect. He seemed to be improving; the pain was less and the pulse slower.

Sept. 3d.—There was complete hemiplegia of the left side; there was no paralysis before.

Now I was convinced that the blow on the head was the cause of all the trouble.

I called Drs. J. T. Kennedy and F. J. Quinlan and we proceeded to explore by making a free incision and dissecting up the scalp, which revealed a small round hole about one-fourth of an inch in diameter which had penetrated the frontal bone about $\frac{3}{4}$ of an inch from the median line. A probe being inserted, dropped of its own weight to a depth of four inches downwards, slightly backwards, and slightly to the left, of course penetrating the brain.

A full dose of Croton Oil was at once administered, which had the effect of giving him four free evacuations.

The treatment after this consisted of bromide of potassium, ice to the head continually, croton oil every second day, perfect rest and keeping the wound open by means of lint and an occasional touch with the solid stick of nitrate of silver. The paralysis gradually becoming less until it disappeared entirely.

After the first dose of croton oil he never had a bad symptom—although the pupil of the left eye remained widely dilated for about three weeks; finally assuming its normal size.

The highest temperature was 99.4° F. on Sept. 18th, twenty-six days after the accident.

At the present time he is in perfect health and attends to his daily occupation; that of driving a truck.

We were never able to determine the manner in which the wound was inflicted; it had every appearance of having been produced by a pistol shot, but no one heard a pistol, so that theory was abandoned.

As it was received in a saloon we thought it might have been done with an "ice pick."

One thing in regard to the case struck me as peculiar, he worked for *seven days* after receiving the wound, unconscious of the existence of anything unusual.

257 W. 15th St.

HOSPITAL RECORDS.

JEWISH HOSPITAL, PHILADELPHIA.

GLYCOSURIA AND GRAVES DISEASE OCCURRING IN THE SAME PERSON.

(Prepared for THE HOSPITAL GAZETTE. By A. SCHAFFINGER, M.D. House Surgeon.)

Bertha M., æt. 35, widow, born in Philadelphia, of Jewish parents. Admitted Nov. 12th, 1877. Her father was subject to epilepsy and asthma and died several months after receiving a severe injury, and apparently from the effects of it, at the age of fifty-five. Her mother is still living and healthy. Her menses began in her twelfth year; about the same time she noticed an enlargement of her neck. When she was about eighteen years old her eyes became prominent and they have remained so ever since. She has always, since girlhood, suffered from palpitation of the heart when excited, or when over-exerting herself. Otherwise she has generally had good health, although she has had to work hard for her living as a seamstress, and would occasionally go for days without food. A year before admission she weighed 250 pounds.

The patient is a married woman and has suffered two miscarriages and had one still-born child. Her husband died five years ago. About eighteen months ago her menses became more scanty and finally ceased altogether. For the past ten months she has had to pass water very frequently and has suffered a great deal from thirst. Her appetite has also increased. Of late a distressing pain in the frontal region has appeared, which is continual in character. Two months ago she noticed swelling of her ankles. For the last three weeks has had night sweats.

Condition upon Admission.—Patient of tall build, dark complexion, emaciated, weighs 111 pounds, (a loss of nearly 140 pounds in one year), skin dry, eyes prominent, tongue clean and dry, thyroid gland enlarged, feet and ankles œdematous. Complaints of frontal headache. Her thirst is urgent and her appetite voracious. Percussion of her chest reveals clear resonance over lungs and an increased area of cardiac dulness. Upon auscultation the expiratory sound is found to be prolonged. The first sound of the heart is found to be

accompanied by a murmur. The impulse of the heart is situated at a lower point and is more forcible than normal. The pulse is 100, and the number of respirations to the minute increased. The dyspnoea is more marked during the night. There is leucorrhœa present, but the uterus is normal in size and position. There is considerable pruritus about the meatus urinarius. The urine is pale, specific gravity 1030. The usual tests reveal an abundant amount of glucose. Eleven quarts passed in 24 hours.

Her diet was regulated as usual in cases of diabetes with the exception that it was found impracticable to exclude bread wholly. Of drugs, digitalis was administered *pro re nata* to control the excessive action of the heart and gr. ss. of carbolic acid given t. d. with a view of ascertaining its virtue as an antglycosuric remedy. When diarrhœa supervened opium was exhibited. The leucorrhœa was combatted by local applications.

Under this treatment, to which occasionally was added sulphate of quinia the case progressed indifferently, the symptoms sometimes appearing to yield to the remedies employed, but only to again exacerbate.

In January, 1878, salicylic acid was employed in the dose of gr. x t. d., instead of carbolic acid, but with no effect whatsoever upon the diabetic symptoms. The emaciation of the patient now made very rapid progress and the diarrhœa could not be controlled. About this time a furuncle appeared on her right thumb.

April 12th, 1878.—So much debilitated that she has to remain in bed. Headache excruciating. Pulse 86, respirations 25, temperature 99.2.

April 20th.—Restless.

April 22nd.—Slight delirium.

April 23rd.—Delirium passing into coma.

April 24th.—Died.

Autopsy.—Skull thickened. Dura mater adherent. Bony lamellæ in *falx cerebri*. Pacchionian glands ossified, arachnoid opaque. Substance of brain looks and feels drier than normal.

Dependent parts of both lungs congested. Heart enlarged, especially the left ventricle; walls thickened, mitral valve thickened, calcareous deposit in one of aortic valves. Liver enlarged and fatty. Pancreas only one half its natural size. Both kidneys enlarged to about double their normal size, and fatty. Bladder contracted; uterus small. The post-mortem condition of the cadaver was remarkable for the almost entire absence of moisture in the tissues.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JNO. A. WYETH, M.D.

REMOVAL OF PROSTATIC CALCULUS.—DESPRES.

Patient æt. 50. Had suffered from stricture, urinary fistulæ, etc., after a gonorrhœa. On introduction of sound No. 7, (F) calculus of prostate was recognized. Examination per rectum confirmed this diagnosis. An incision was made in the median line in front of the anus, the wound was dilated and

a stone as large as a chestnut was removed from the prostate. Recovery with urinary fistula.—*Progress Medical*, Oct. 19, 1878, p. 787.

DEATHS FROM CHLOROFORM.

Patient male, aet. 27. Heart sounds normal. Stimulants administered before inhalation, which was carefully conducted. Insensibility in three minutes. Before the operation was begun, patient's face suddenly blanched, pulse fluttered and ceased. Artificial respiration and inhalation of amyl nitrite were unsuccessful. *Autopsy*. Fatty degeneration of heart, which was enlarged. Wall of right ventricle thinner than normal. Valves perfect, aorta atheromatous. In apices of lungs, cheesy nodules and small caverns. Liver, spleen and kidneys indicated alcohol habit.

(2.) Patient aet. 23, after being chloroformed, rallied well, spoke to attendants intelligently, went to sleep three hours later, and was found dead five hours after the inhalation. *Autopsy*. Brain very anæmic and coagulated blood in several points. Other organs sound. Cause of death thought to be extravasation of blood in brain substance.

(3.) Patient, male, aet. 38. Chloroformed in attempt to reduce parapimosis. In the early stage of the administration, irregular respiratory movements were observed, which passed off in two or three minutes, when respiration became regular, and in a few moments suddenly ceased. Artificial respiration after five minutes restored the respiratory movements, but the heart ceased to beat, despite Faradisation and hypodermic injection of brandy. *Autopsy*. Heart fatty and dilated. Valves normal. Lungs and other viscera congested. Death due to want of heart power.

(4.) Patient female, aet. 46, chloroformed for removal of cataract. Had previously complained of shortness of breath, especially in going up stairs. Ether was first administered to her in the recumbent position, head slightly elevated, and then forty drops of chloroform were added. In one minute's time her face became deathly pale. The anæsthetic was removed and stimulants administered. Pulse and respiration continued four minutes after stopping the inhalation, when death suddenly ensued. *Autopsy*. Heart soft and empty. Mitral stenosis marked. Aortic insufficiency. Heart walls fatty. Lungs emphysematous. Cause of death, failure of heart action. *Deutsche Medicinische Wochenschrift*, Nov. 9, 1878, p. 562.

CASE OF THIRD DENTITION.—E. FORSTER.

Patient 77 years old. Twenty years previously, on account of severe neuralgia, he had the teeth of the upper jaw extracted. Ten years later two new teeth made their appearance in the position of the two right incisors of the upper jaw. They were smooth, thin and transparent, soon became loose, and were pulled out by the fingers in the second year of their growth.—*Deutsche Medicin Woch.*, Nov. 9, 1878, p. 563.

CURARE IN EPILEPSY.

Dr. Kunze recommends the hypodermic administration of curare in epilepsy, as follows: Curare 3 decigrammes ($4\frac{1}{2}$ grains) water 5 gram. ($77\frac{1}{2}$ grains

by weight), hydrochloric acid 1 to 2 drops. The eighth of this quantity to be injected every four or five days for three weeks. If no improvement is derived after this time, none need be hoped for. In eighty cases he had cured six per cent. by use of this remedy.—*Ibid*, p. 564.

LABORANDI IN URÆMIC CONVULSIONS.

Dr. E. Boeghold reports 3 cases in which *Pilocarpine* was used with beneficial effect in uræmia.

(1.) Male, aet. 29, suffering from chronic nephritis, anasarca and ascites. Nov. 19, 1877, attacked with convulsions, which ceased after copious bleeding. Feb. 3, 1878 a second attack. *Pilocarpine* subcutaneously which in 4 minutes produced profuse perspiration. Convulsions disappeared and did not return during the remaining 7 months of patient's life, who died of pulmonary œdema.

(2.) Female, aet. 25, pregnant 5 months, when she lost consciousness in uræmic convulsions. Slight œdema of face and leg. Urine drawn by catheter, highly albuminous and full of granular casts. Hypodermic of *pilocarpine* and in 5 minutes profuse sweating. Convulsions did not again return. Slight amaurosis on return of consciousness, which gradually disappeared. 3 weeks later patient aborted. There had been no repetition of the medicine. She recovered and when discharged the albumen had not reappeared in urine.

(3.) Female, unmarried, aet. 22, suffering from œdema due to nephritis as a sequence of scarlatina. Having been seized with convulsions the same treatment was pursued with equal success. On account of the persisting œdema a daily injection of *pilocarpine* was continued for some time, which cured the disease.—*Deutsche Med. Woch.*, Dec. 7, 1878, p. 604.

THE MOST CONVENIENT POSITION FOR TRACHEOTOMY.

Dr. Schneider of Schönbeck (a Elbe) recommends that the patient be laid on his back with the upper part of the shoulders even with the edge of the table, allowing the head to hang down of its own weight. With the light of a window or a single lamp, when a full staff of assistants cannot be commanded, he thinks this position facilitates the operation and serves to prevent the influx of blood through the wound in the air passages. He reports several cases successfully treated in this manner.—*Ibid*, p. 607.

OVULATION WITHOUT MENSTRUATION.

Dr. de Syntety reports the case of a girl who at 12 years of age evinced all the signs of puberty except menstruation. At 26 she married but there occurred no change in her in this respect. At 38 she died of tuberculosis. Ovaries were well developed, uterus about normal, although the cavity measured only 4 (instead of 7) cm in length. The mucous membrane was not well developed, being seemingly embryonic. The section of the ovaries showed that ovulation had progressed regularly.—*Ibid*, Nov. 2, 1878, p. 549.

Mount Sinai Hospital.—The Trustees of this institution have established a "Children's Ward," which is now open. It contains 20 beds.

THE HOSPITAL GAZETTE,

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and the Collateral Sciences.

EDWARD J. BIRMINGHAM A.M. M.D. *Editors.*
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NEW YORK, SATURDAY, MARCH 22D, 1879.

EDITORIAL.

ABSURD THEORIES.

The following is an abstract from a paper recently published in the Archives of Medicine by a gentleman bearing a very enviable reputation as a microscopist. The author says:

"In fact, the microscope reveals so much of the general health of a person that more can be told by it in many instances than by the naked eye or by physical examination. . . . Marriages should be allowed in doubtful cases only upon the permit of a reliable microscopist. Last season a young physician asked me whether I believed in marriage among kindred. He fell in love with his cousin, and so did the cousin with him. I examined his blood and told him that he was a 'nervous' man, passed sleepless nights, and had a moderately good constitution. The same condition being suspected in the lady, marriage was not advisable, for fear the offspring might degenerate. So great was his faith in my assertions that he gave up the idea of marrying his cousin, offering her the last chance, viz., examination of her blood. This beautiful girl came to my laboratory, and, very much to my surprise, I found upon examination of her blood a first-class constitution. The next day I told the gentleman, 'you had better marry her.'"

A few months since the same author advanced the theory that the ovum represents the female element, and the spermatozoa the male, and that the sex of an individual was determined by the number of spermatozoa impregnating the ovum; if a large number a male would result, and *vice versa*. He believes that if coition takes place at or following the time of menstruation, the ovum being low down, will be impregnated with a number of sperm cells, and a male will result; whereas, coition between the periods of menstruation, if effective, will result in a female. Numerous cases are deduced to bear out this theory.

We regret very much to see a gentleman of such scientific attainments as the originator of the above theories subscribing to such nonsense. If such statements were made by some notorious quack we should know how to regard them, but we think it about time that the intelligence of members of the profession should cease to be insulted by the ab-

surdities to which enthusiasm often leads the specialist in some departments of medicine. Such claims for the microscope as that above made are simply ridiculous, and can redound only to the discredit of their originator. Indeed, we may say that they give strong evidence that his self-conceit has carried him almost to the verge of insanity.

SELECTIONS FROM JOURNALS.

GASTROSTOMY FOR MALIGNANT STRICTURE OF THE ŒSOPHAGUS.

The following interesting case occurred at St. Bartholomew's Hospital, London, and is taken from the *British Medical Journal*:

A cachectic emaciated man aged 55 had presented himself for relief at the out-patient department a month before the consultation. Mr. Langton then detected a dense obstruction just behind the cricoid cartilage, and a probang passed beyond the pharynx returned stained with blood. There was severe dysphagia; but the patient could swallow fluids with tolerable ease. At the date of the consultation, his condition had become much aggravated. It was with the greatest difficulty that he could swallow fluids, and any beef-tea, that he managed after painful efforts to get down his throat, soon returned. This indicated that dilatation probably existed above the seat of stricture. An induration could be detected to the right of the cricoid-cartilage, pushing outwards the sterno-mastoid muscle. The patient was rapidly losing flesh, and suffered from the constant pain in the epigastrium observed in cases of starvation.—Mr. LANGTON remarked that one of three methods of treatment might be reasonably proposed. The patient might be fed by a narrow tube passed beyond the stricture into the stomach. Then, too, he might be fed by the rectum. Or gastrostomy might be performed under antiseptic spray, the peritoneum first being laid open, the stomach stitched on to the abdominal wall, and opened a few days later. This appeared to be the only satisfactory way of averting the pangs of hunger for the rest of the patient's life.—Mr. HOLDEN believed that the disease was situated lower down than the cricoid cartilage. He would first feed the patient by a narrow tube, and, when that became dangerous, he would perform gastrostomy in the manner recommended by Mr. Langton.—Mr. SAVORY considered the disease to be epithelioma at the junction of the pharynx with the œsophagus. He objected strongly to the passage of a tube through the diseased part, and feeding *per anum*, always unsatisfactory, would be necessary; but it would be best to perform gastrostomy.—Mr. WILKIE considered that gastrostomy was in this case quite justifiable; though it was but palliative, it would promote euthanasia. At present, the patient was in misery, and considerable risk might be incurred to relieve him from hunger.—Mr. BAKER was in favor of feeding by a tube until much pain was produced; then the stomach might be opened.—Mr. MARSH thought that, although gastrostomy was one of the most fatal operations in surgery, this was a case where it was really necessary.—Mr. LANGTON, in conclusion, stated that he was very loth to feed by

a tube or by enemata, and intended to recommend the unfortunate patient to submit to the operation of gastrostomy.

Result: On Monday, February 10th, Mr. Langton performed the first steps of the operation of gastrostomy. A vertical incision about two inches in length was made through the abdominal walls, corresponding to the segment of the left linea semilunaris immediately overlying the stomach. That organ was fixed to the edges of the wound by wire sutures, the wires on the right side passing through the substance of the edge of the rectus. Mr. Langton considered that there would be less inversion of the margin of the wound than if he had not included muscular tissue in the suture; nor did he fear that the transfixion of the muscle would produce any ill-effects. The operation was performed under carbolic spray. The patient was fed with essence of beet, brandy, etc., *per anum* till Wednesday, February 19th, when Mr. Langton opened the stomach and introduced a vulcanite tube, through which greenish bile immediately escaped. The patient's temperature, which was 94 deg. before the operation, rose to 96 deg. in the evening. On the next day, the patient retained most of the nourishment introduced through the tube under the superintendence of the house-surgeon, Mr. Bruce Clarke. Though greatly emaciated, the poor sufferer appeared to be somewhat the better for the operation; but he gradually became more and more feeble, and expired at 3 a.m., on February 22nd. On *post mortem* examination, the primary disease was found to be cancer of the mediastinal glands, compressing the œsophagus. There were secondary deposits in the lungs, and slight constriction of the œsophagus close to the stomach, which was held in apposition to the wound by the sutures alone, no plastic lymph having been effused.

PARTIAL DESTRUCTION OF THE SKULL.

At the meeting of the Académie de Médecine, on January 18th, M. Broca presented the upper portion of the skull of a boy, who, notwithstanding the terrible injury, was still alive and well. The patient, a shepherd boy, had always enjoyed good health, but from his birth had presented the peculiarity that, if he once went to sleep in the evening, it was impossible to awaken him. He would spontaneously awake in the morning and go about his work. One evening, having been left sitting on a chair by the fire, he fell asleep, and was found almost in the fire. His large felt hat was smouldering on his head, which had also been burnt; but he had gone on sleeping as usual. He was put to bed, and the next morning awoke and went out to tend his flock without complaining of any pain. This went on for some weeks, until a large eschar fell off and exposed the bones of the skull, which appeared black and mortified, while a line of demarcation separated the dead bone from the living. One day a sequestrum fell off which comprised the whole of the external surface and a portion of the diploe of both parietal bones, the upper portion of the frontal, and part of the occipital bone. The temporal bones, which were still covered by their muscles, had not suffered. About a year later the wound began to be covered with granulations. In one particular spot, which

corresponded to the middle region of the right parietal bone, pulsations could be felt, which were isochronous with those of the heart. The next year these pulsations had disappeared, showing that ossification had taken place. The wound now is almost as large as it was a year ago, as the cicatrization progresses very slowly; but the boy, although he had lost the greater part of his skull, has continued to tend his flock every day. From time to time his wound is dressed by covering it with a cloth dipped in oil, over which he wears a felt hat. He often carries heavy burdens on his head, or heavy branches of trees, and is said to rejoice very much at not feeling the thorns, which used to prick his scalp rather painfully when he was in full possession of his skull.—*Brit. Med. Jour.*

CASE OF POISONING BY TOBACCO.

John B—, aged fourteen, was admitted to hospital on Nov. 21st, 1878, at about 5.30 in the afternoon. He was quite insensible; the skin was cold and clammy; the face was very pallid, even to the lips, and some distinct drops of sweat were visible on the forehead. Both pupils were widely and equally dilated, but responded to light. The ælæ nasi were widely dilated, respiration was slow and rather labored, and accompanied by a rattling noise in the throat; the pulse was slow, feeble, and irregular, being about 40 to the minute. The upper extremities were somewhat stiffened, but the legs were completely relaxed; the muscles of the abdomen were contracted; the jaws were firmly fixed, the masseters and other muscles being firmly contracted. On separating the lips a large quantity of brown frothy mucus dribbled away from between the teeth. About every three or four minutes there occurred a very convulsive twitching of the muscles on the left side of the face, the eyelids of that side being very much affected. There was very little spasm on the right side of the face. Now and then, also, convulsive movements of both upper extremities occurred, the right being much more attacked than the left one. The bowels were not moved.

The face and chest were well slapped with a wet towel, and the galvanic battery was applied over the precordial region, but without rousing the boy. The jaws were with difficulty separated with a gag, when about half an ounce of thick, brownish mucus, mixed with a watery matter, was expelled from the mouth. The stomach-pump was used, but very little was drawn off. About an ounce and a half of brandy was then injected into the stomach, after it had been well washed out with warm water. The patient was then taken to bed and placed between blankets, hot-water bottles being applied to the feet. Just before he was taken away to the ward his right arm was violently convulsed, and lifted up towards his mouth. At 7 P. M. he was still insensible. The pulse was 100, temperature nearly normal. The pupils were still dilated, and equal. At 7.45 P. M. he was becoming sensible. A pinch on the skin aroused him. The nurse said that he had been sick, and had made use of the exclamation "Oh dear!" when he vomited. The vomited matter consisted principally of small pieces of undigested meat and vegetables, with but little fluid. The contents were not tested for nicotine, but a

small piece of substance was found resembling a piece of tobacco-leaf, but there was no smell of tobacco. At this time pupils were only slightly dilated. Pulse 100; temperature 99.0°; respiration 20. At 8.15 P. M. he was seen by Dr. Thomas. He was sensible, and able to speak. He complained of feeling sick, but said he had no pain over his stomach or elsewhere. When asked if he had been smoking or chewing tobacco lately, he strenuously denied either accusation. Milk diet was allowed him, and the effervescing mixture, with the aromatic spirit of ammonia, was ordered to be given every four hours. At 9.30 P. M. he was asleep, and seemed quite composed. He had not been sick again. On the following morning he said he felt quite well, and in the evening of the same day he was discharged. He maintained, after the question had frequently been put to him, that he had not been smoking or chewing tobacco, and the only account he could give of his illness was that the day before, after eating part of an apple, he had felt ill, and began to vomit.

The following history was obtained from the patient's father: His son worked at a cutler's shop; both he and the mother were very healthy; there were several children besides the patient, but all were quite well; no fits of any kind had ever occurred in the family before. The patient had been a remarkably healthy lad up to the present time, never having been laid up with any illness; he had been taking no medicine of any kind of late. The lad was a great smoker, his mother having found several pipes about him; once or twice he had felt very sick from an overdose of smoking. The father stated that the boy presented himself at home as usual for dinner on the day he was taken ill, when he appeared in good spirits, and looked quite well. He complained of no ailment whatever. It was about 12.45 P. M. when the father saw him. All the family dined together, the meal consisting of broth and bread, the former containing small portions of meat and vegetable. Each member of the family partook of the dish; there was nothing else eaten. Patient went off to his work quite well at 1 P. M., and nothing was heard of him until about 4.45 P. M., when a messenger came to his father, saying that his son had been taken very ill, and was insensible; that when the boy returned to work after dinner he had complained of feeling sick, and on going into the back yard had begun to retch and to vomit, bringing up the greater part of his dinner. Immediately after the sickness he seemed to lose the use of his voice, and became senseless, his body seeming to be slightly convulsed at times. As soon as the father saw him he had him conveyed to the hospital. Neither the father nor any of the boy's fellow-workmen could give any reason for his present condition. The mother of the lad was seen in the evening, and she stated that a boy had told her that he had seen patient chewing some tobacco after his dinner, and she supposed it must have been too strong for him. It was deemed a case of poisoning by tobacco. It has been ascertained that the lad has been quite well since he was discharged, which is nearly two months ago, and seems to be in no way affected by his recent attack of illness.—*The Lancet*.

EXTEMPORE FORMULA FOR AN ANTIDOTE TO ARSENIC.

Dr. James B. McCaw remarked that dialyzed iron is simply a peroxide of iron, and is exceedingly sensitive to oxygen. Hence, on slight exposure to the atmosphere (as when the bottle remains unstopped), it unites with the oxygen of the air, and the solid oxide of iron is formed. He suggests the following formula as one not generally known for an antidote to arsenic, and claims for it precedence over all others; first, because it forms the surest antidote, and secondly, because the agents are almost always accessible—even to the country doctor who carries saddle-bags: *R.* Muriate tincture of iron, 3 j; bicarbonate of soda (or potash), 3 j; tepid water, teacupfull. *Mix.*—The sesqui-oxide of iron is immediately formed in a solution of chloride of sodium (common salt). Give this mixture almost *ad libitum*. It is a perfect antidote to arsenic.—*Can. Jour. of Med. Science*.

THE PATHOLOGY AND TREATMENT OF HEADACHE.

Dr. Day in a clinical lecture delivered at the Samaritan hospital considers the various forms of headache, and their appropriate methods of treatment. Headache occurs in cases of anæmia and in hyperæmia. In headache from cerebral anæmia the pain is referred to the top of the head, which often feels hot and burning; while in headache from hyperæmia the pain is frontal, throbbing, and bursting. Dr. Day further distinguishes in headache common to both sexes, a sympathetic variety due to some eccentric cause of irritation; nervous headache caused by temporary derangement of the nervous centers; and neuralgic headache. Headache also arises from menorrhagia and from the action of poisoned blood upon the nerve centers; organic headache is brought about by morbid changes within the skull. Headaches are of frequent occurrence in children, and if persistent are very significant, and should invite more serious attention than a similar disorder in the adult. As to the treatment of headache Dr. Day advises as a preliminary step a diligent search after the cause of the disorder, which, when found, should be removed as speedily as possible. The remedies to be used are tonic or calmative as the case may require. If the brain be over-excited, bromides of potassium and ammonium, chloral hydrate and morphia as a hypodermic injection or in other form, may be used. The morphia combined with an infinitesimal dose of atropia, and used with care has been found to be an invaluable remedy, even in cases of organic disease. In nervous headaches a stimulating emetic of sulphate of zinc, mustard, or ipecacuanha will act like magic, as will also a mustard-leaf at the back of the neck, the feet and legs being at the same time put into hot water. In the neuralgic variety tonics are serviceable, especially cod-liver oil, phosphorus, quinine, and arsenic. The local application of aconitina ointment is serviceable in that form known as brow ague. As a general treatment it is recommended to elevate the head at night, and to make use of a hard pillow. In every case the first principle to inculcate is rest.—*British Med. Jour.*

HEMORRHAGE AFTER AMPUTATION OF THE CERVIX, BY THE GALVANO-CAUTERY.

(*Transactions Obstetrical Society*, of N. Y. Five cases of dangerous secondary hemorrhage were announced by Drs. Hunter (Dr. Thomas' case), Ward, Mann and Noeggerath.

The occurrence of these secondary hemorrhages was explained in two ways :

1. The plug in the blood-vessels differs in character from that formed when other means of arresting hemorrhage are used.

2. The plug is shorter than usually formed. The latter was regarded as the more plausible. *M. Med. Jour.*

LUMBAR COLOTOMY AT SEVENTY TWO YEARS OF AGE.

THE capability of lumbar colotomy, both to ward off impending death and to relieve suffering in a variety of shapes, even when a fatal issue is not immediate, is not fully recognized by the profession. One of my most recent cases will help to show with what little risk to life this operation can be performed, even at an advanced age, and also how existence may be made tolerable afterwards. In August, 1878, I performed colotomy in the left loin of a male aged 72, a patient of Mr. Rust, of Wethersfield. For some two years the patient had complained of slowly increasing discomfort in the lower bowel, with gradually and at length distressingly frequent desire to defæcate. There was also occasional incontinence of fæces. During a few weeks, while the patient was twice seen by me, a malignant growth in the rectum, high up and situated anteriorly, progressed rapidly in all directions, and threatened to protrude at the anus. To put a stop to defæcation (itself, when frequent, exhausting); to delay the progress of the growth; to prevent incontinence of fæces; and, indeed, to put the rectum in absolute repose, colotomy was performed.

Under the careful treatment of Mr. Rust, our best wishes were realized. After the first twenty-four hours, the patient never uttered a complaint. The wound healed kindly. In due time the patient got up, walked about the house, then out of doors, and presently rode on horseback and walked out shooting. At the present time (February, 1879), he is able to go to the weekly county market.—C. F. MAUNDER, in *Brit. Med. Jour.*

SAYRE'S TREATMENT OF SPINAL CURVATURE

I HAVE found two inconveniences in Sayre's plaster jackets, viz., the friability of the plaster when dry, and the tendency of the jacket to become slack. The addition of gum-arabic, as used by Dr. Walker, obviates, to a certain extent, the former objection, but I do not think so entirely as solution of gelatine, which I have been in the habit of using. The tendency to slackness is owing to the fact that all woven material shrinks when wetted, and, consequently, expands to its original dimensions when dry. A condition exactly the reverse obtains with paper. Therefore, I have found coarse brown

paper an excellent basis for the plaster. It has also the advantage that it can be applied in a single piece (with as many layers as needful) to the parts requiring support. The method I pursue is as follows—whether as a spinal support or as a splint for fractured ribs or limbs. Coarse brown paper, shaped to the size and form required, is immersed for a few minutes in warm water. The superabundant moisture having been removed, the plaster, moistened with thin solution of gelatine, is spread over one side; over the plaster is laid another sheet of paper similarly moistened. The whole is now applied with suitable bandaging, and left to dry. Any number of layers can be subsequently super-added. When dry, the jacket or splint will be found to have contracted, not slackened, and also to be somewhat elastic.—R. E. POWER, in *Brit. Med. Jour.*

A BULLET IN THE BLADDER.

The following interesting case is reported by Dr. Watzelshofer, in the *Wiener Medicinische Presse*, January 25th, 1879. An infantry soldier received, on August 16th, 1878, a gun-shot wound of the left thigh, just below the great trochanter. He was carried to the ambulance, but an examination of the wound failed to reveal the presence of a bullet. On his arrival at the hospital in Marburg (August 22d), blood was passed *per urethram*; this was the only occasion in which there was hæmaturia, but the urine remained somewhat cloudy. At the end of October, the wound of the thigh having healed, the patient was dismissed; difficulty of micturition then ensued, and, at the beginning of December, a piece of the thick linen (three *centimètres* long and one *centimètre* wide) of which drawers were made and worn at the time of the injury, was expelled from the urethra. When he was admitted to Dr. Billroth's clinic, it was found that a foreign body was present in the bladder. Median lithotomy was performed, and the bullet, coated with phosphates, was extracted. The wound caused by the operation healed, and the patient left the hospital. The urine, however, did not regain its normal character; and, on January 17th, after a certain amount of straining, a small portion of his blue uniform (one *centimètre* long and half a *centimètre* wide) was discharged from the urethra. After this the patient completely regained his health.

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list concluding this week with mixtures for diseases of the respiratory organs. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

MIXTURES FOR DISEASES OF THE RESPIRATORY ORGANS.

16. *Mist. Glycyrrhizæ* (O. D. P.)

R. Ammonii Chloridi

Ext. Glycyrrhizæ..... aa 3 2

- Tinct. Opii Camph. fl. 2
 Aquæ q. s. ad. fl. 4
 Mix. Dose: a teaspoonful. *Dr. Brookes.*
17. *Mist. Glycyrrhizæ Co.*
 BROWN MIXTURE.
 R. Pulv. Ext. Glycyrrh.
 " Sacchari.
 " Acacie. aa fl. 1
 Tinct. Opii Camph. fl. 2
 Vini Antimonii. fl. 2
 Spts. Ætheris Nit. fl. 1
 Aquæ q. s. ad. fl. 4
 Mix. Dose: a teaspoonful. Shake before using.
18. *Mist. Hydrocyanica B. H.*
 R. Potass. Cyanidi.
 Morphine Sulphat. aa grs. 10
 Syrupi Tolut. fl. 16
 Mix. Each drachm contains $\frac{1}{8}$ grain each of potassium cyanide and morphia sulphate. Dose: a teaspoonful.
19. *Mist. Hydrocyanica C. H.*
 R. Potass. Cyanidi. grs. 2
 Vini Antimonii. fl. 3 2
 Syr. Tolut.
 Mucil. Acacie. aa fl. 1 2
 Aquæ q. s. ad. fl. 2
 Mix. Dose: a teaspoonful.
20. *Mist. "Pertussis" (O. D. P.)*
 R. Potass. Bromidi. grs. 10
 Syr. Ipecac.
 Tinct. Opii Camph.
 Syr. Lactucarii.
 " Tolutani. aa fl. 1 1/2
 Aquæ q. s. ad. fl. 4
 Mix. Dose: a teaspoonful.
21. *Mist. Pot. Bromidi et Cyanidi (O. D. P.)*
 R. Potass. Bromidi. 3 4
 " Cyanidi. grs. 4
 Syr. Pruni Virgin. fl. 3 4
 Mix. Dose: a teaspoonful.
22. *Mist. Potassii Chloratis (O. D. P.)*
 R. Potass. Chlorat. 1
 Ext. Glycyrrhizæ. 1/2
 Ammonii Chloridi. 3 1
 Aquæ. fl. 4
 Mix. Dose: a teaspoonful. *Dr. Wheelock.*
23. *Mist. Pot. Iod. et Hoffmanni (O. D. P.)*
 R. Potass. Iodidi. 3 3
 Tinct. Tolut. fl. 3 1
 Ext. Pruni Virg. Fl. fl. 3 1
 Syrupi. fl. 1
 Spts. Ætheris Co. fl. 2
 Aquæ. fl. 1
 Mix. Dose: a teaspoonful. *(Dr. Janeway.)*
24. *Mist. Pot. Iod. et Hoffmanni Co. (O. D. P.)*
 R. Ammonii Carbon. grs. 50
 Potass. Iodidi. 3 3
 Syr. Pruni Virg.
 Spts. Æther. Co. aa fl. 3 1 1/2
 Mix. Dose: a teaspoonful. *(Dr. Katzenbach.)*
25. *Mist. Tolutana Acida.*
 R. Tinct. Tolutanæ. fl. 2
 Syr. Senegæ. fl. 1/2
 Acid. Acetici. fl. 1 1/2
 Syr. Pruni Virg. q. s. ad. fl. 2
 Mix. Dose: a teaspoonful.

26. *Whooping Cough Mixture (INF. H.)*

- R. Acid. Nitric. dil. fl. 3 1
 Syr. Pruni Virg. fl. 3 1/2
 Aquæ q. s. ad. fl. 3 2

Mix. Dose: a teaspoonful.

27. *Mist. "Tussis" (O. D. P.)*

- R. Tinct. Nucis Vom. fl. 3 2
 Vin. Ipecac. fl. 3 2 1/2
 Syr. Sarsap. Co. *Sarsaparilla* ~~Sarsaparilla~~
 " Senegæ. aa fl. 3 1 1/2

Mix. Dose: a teaspoonful, for children. *(Dr. Ackerman.)*

28. *Mist. Potassii Nitratis (O. D. P.)*

- R. Potass. Nitrat. gr. 1
 Spts. Æther. Nit.
 Syr. Ipecac. aa fl. 3 1/2
 " Pruni Virg. fl. 3 2
 Aquæ q. s. ad. fl. 3 1

Mix. Dose: a teaspoonful, for children. *(Dr. Robinson.)*

29. *Mist. Sedativa (O. D. P.)*

- R. Acid. Hydrocyan. dil.
 Chloroformi purif. aa fl. 3 1
 Tinct. Hyoscyami.
 Syr. Tolutani.
 Aquæ Camphoræ.
 Mucil. Acacie. aa fl. 3 1

Mix. Dose: a teaspoonful. *(Dr. Katzenbach.)*

CORRESPONDENCE.

A CASE OF ARTICULATE SPEECH IN A
DEAF MUTE.

Editors Hospital Gazette,

GENTLEMEN:—Since leaving College I have found a very interesting case that appears worthy of notice. I have heard Prof. Post and several other New York men say they never saw a man that could talk and hold an intelligible conversation with his voice, who had never heard a word in his life. Now, I thought of this case when attending their lectures but thought I would wait and be sure this man had *never* heard, and after careful inquiry I find that he was born deaf. Now he can talk to a man all day, on any topic, and make himself well understood, (if a person is a little used to him,) or has heard him talk once or twice. He talks in a monotonous high key, and becomes very annoying in a close room. He does not vary his tone of voice. He understands readily if he can see the speaker's mouth, and even when a large mustache covers the lips, he understands as well.

I have asked physicians of large experience about this case, and they all wonder "how he learned to use words."

He cannot understand counting on the fingers, but can tell how many you mean by simply telling him. It is not necessary, but useless to talk loud to him, a whisper is sufficient.

Now, Messrs Editors, please make a small note of this case if you think it of enough importance, as I

am sure it is wonderful. The man lives near here. Is 50 years old, and a well-to-do farmer. This case may interest professors of deaf and dumb institutes. It is well authenticated and open for investigation.

Yours truly,

GEO. B. BEEBE

Edinboro, Pa.

EXCISION OF HARD CHANCRES.

No. 36 East 30th st.,
New York March 20th, 1879.

Editors of the Hospital Gazette:

GENTLEMEN: In your editorial in the number of March 8th, you state that "the idea of excising an indurated chancre was first suggested (as far as we have been able to ascertain) by Dr. F. N. Otis, who in 1871 advanced his ingenious theory of syphilitic infection."

Permit me to say that Prof. B. I. Raphael, in his lectures in the New York Medical College during the years 1861-3, spoke of excision as one of the methods of treating chancres.

Respectfully yours,

JOHN H. THOMPSON, M. D.

NEWS ITEMS AND NOTES.

Election of Dr. Biddle's Successor.—The Board of Trustees of Jefferson College has elected Professor Roberts Bartholow, of Cincinnati, as successor of the late Professor John B. Biddle, in the chair of materia medica and therapeutics. Dr. Bartholow, who had occupied a similar chair in the College of Ohio, in Cincinnati, is eminent as an author, and, during the war, had charge of the general hospitals in Baltimore, Washington, Fort Schuyler, Chattanooga and Nashville. The other candidates for the vacancy were Dr. J. J. Reese, Dr. H. Hartshorne, Dr. James Darrach, Dr. J. Solis Cohen, Dr. J. L. Ludlow, Dr. Robert Bolling, Dr. James Wilson, Dr. L. Turnbull, all of these gentlemen being of Philadelphia, and Dr. W. C. Reiter, of Pittsburgh. The salary attached to the position is \$6000 per annum.

Rush Medical College.—The Trustees and Faculty of Rush Medical College desire to announce the establishment of a Professorship of Gynecology, and that Prof. WM. H. BYFORD, A. M., M. D., of Chicago, has accepted the appointment to fill the new chair.

Death of Two Medical men from Diphtheria.—Two deaths from diphtheria have recently occurred among students of the hospitals in Paris. M. J. Abbadie-Tournè, *interne* at the Hôpital des Enfants Malades, died on March 6th, after an illness of a week, from diphtheria contracted in operating on a child; and M. H. Carette, *externe* at the Hôpital Sainte-Eugénie, died last week, after an illness of six days, from diphtheria.

Deodorized Iodoform.—The very unpleasant pungent odor of iodoform can be completely masked by oil of peppermint. For instance, iodoform 2.0, vaseline 30.0., rubbed up with six drops of oil of peppermint make an ointment with a pleasant aromatic scent.

Fees in Spain.—The large fee of a thousand guineas which we mentioned as having been paid by Espartero for the then novel and highly important

operation of lithotripsy performed for him successfully by Dr. Costello, is capped by a fee which, as a medical correspondent in Madrid informs us, was recently paid by a Spanish grandee for a much more simple and every-day service. The lucky practitioner was a Don F. Pinto, who was Spanish ambassador to England during the short Republican rule. He learnt, in his travels, the application of Sayre's plaster jacket for spinal affections; and for the application of a Sayre's jacket to a Spanish marquis he has, we are informed, received a sum equivalent to about £ 2,170 sterling. This fee is the more startling, when we are told that the ordinary home consultation-fee of a practitioner of this class is five francs.—*Brit. Med. Jour.*

The Philadelphia Medical Society protests against the walking of Misses Bartell and Vernon.—The Philadelphia County Medical Society, at a regular meeting on March 26th, passed some very strongly worded resolutions regarding the pedestrian exhibition now taking place here, at Concert Hall, in which Miss Annie Bartell, the milkmaid, is endeavoring to accomplish 4,000 quarter miles in as many quarter hours, and Miss Ida Vernon is trying to register 2,000 half miles in a like number of half hours. The resolutions are worth giving in full:—

Resolved, That this society desires to express its unqualified condemnation of the barbarities now being inflicted upon women in this city under the falsely assumed name of exemplification of physical culture and pedestrianism, but which simply consists in the systematic deprivation of natural sleep for long periods of time, a form of slow torture not surpassed in the annals of the Inquisition.

Resolved, That in the opinion of the Society such experiments are not only entirely destitute of scientific value but are attended with serious risks to the mental sanity and even to the lives of those upon whom they are made.

Resolved, That a copy of these resolutions be forwarded to His Honor the Mayor of Philadelphia, with the suggestion that he shall consider whether the interests of humanity would not justify him in interrupting an exhibition so essentially cruel in its character.

Dr. Benjamin Lee, the mover of the attack, called upon the Mayor to leave a copy of the resolutions of the society. The Mayor was absent, and the physician wrote a note, in which, speaking of the walk, he says:—

"When it is remembered that its object is to keep a woman without more than ten minutes' sleep at a time for a month, need anything more be said to show its cruelty? If it could be proven upon a prison superintendent that he had inflicted such a punishment on a convict, the whole community would be filled with horror and his removal from office would be the least retribution that would satisfy the popular indignation. And yet the city can sit by and see a parcel of blacklegs inflict this torture on a couple of weak women, for the sake of filling their own pockets, and utter no word of remonstrance. It may not be known to your Honor that these poor creatures are actually forced and dragged around the course in their sleep. I am credibly informed that one of them is already suffering in her health in a way that woman is most

apt to do from over physical exertion. It lites were treated in this manner the Society for the Protection of Cruelty to Animals would interpose to protect them, and punish their tormentor. The plea that these women do it of their own free will is too shallow to weigh with any one who knows what women are. They would neither of them, take another step were they not compelled to. I trust that your Honor will at least consider this matter of sufficient importance to make it a subject of investigation."

BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1893.
(No. 12. Week ended March 12th, 1899.)

OFFICE SURGEON-GENERAL, M. H. S.

Washington, March 12th, 1899.

Boston.—Week ended March 8th. Deaths from all cases, 162, an annual ratio of 23 per 1000 of the population; 13 cases of scarlet fever, 3 deaths; 11 cases of diphtheria, 5 deaths. Enteric fever caused 3 deaths, pneumonia and bronchitis 26, phthisis 34.

Providence.—Week ended March 8. Total deaths, 37. An. ratio, 19.2; scarlet fever caused 3 deaths, diphtheria 2, acute pulmonary diseases 7, phthisis 6.

New York.—Week ended March 8. Total deaths, 355. An. ratio, 26.5. Diphtheria caused 15 deaths, croup 14, scarlet fever 60, acute lung diseases 105, whooping cough 17, phthisis 85.

Brooklyn.—Week ended March 8. Total deaths 229. An. ratio, 21.09; 79 cases of scarlet fever, 19 deaths; 42 cases of diphtheria, 5 deaths. Acute lung diseases 43.

Hudson Co., N. J.—Week ended March 8. Total deaths 71. An. ratio, 19.5. Scarlet fever caused 7 deaths, diphtheria 2, acute lung diseases 10.

Buffalo.—Week ended March 8. Total deaths 33. An. ratio, 12. Scarlet fever caused 12 deaths, diphtheria 3.

Philadelphia.—Week ended March 8. Total deaths 311. An. ratio, 18.4. Scarlet fever caused 10 deaths, diphtheria 9, enteric fever 7, acute lung diseases 42. Health of city improving. Pulmonary diseases diminishing.

Pittsburgh.—Week ended March 8. Total deaths 60. An. ratio, 21.5. Enteric fever caused 3 deaths, diphtheria 6.

Baltimore.—Week ended March 8. Total deaths 140. An. ratio, 20. Diphtheria caused 5 deaths, scarlet fever 7, acute lung diseases 26.

District of Columbia.—Week ended March 8. Total deaths 77. An. ratio, 25. Scarlet fever caused 4 deaths, diphtheria 1, acute pulmonary diseases 28, phthisis 11.

Richmond.—Week ended March 8. Total deaths 38. An. ratio, 25. Scarlet fever caused 2 deaths.

Savannah.—Week ended March 7. Total deaths 16 (4 whites, 7 colored.) An. ratio for whole population, 30.

Cleveland.—Week ended March 8. Total deaths 52. An. ratio 16.7. Scarlet fever caused 2 deaths, diphtheria 4.

Louisville.—Week ended March 8. Total deaths 45. An. ratio, 14. One death from zymotic disease (enteric fever), 15 from acute lung diseases.

St. Louis.—Week ended March 8. Total deaths

108. An. ratio 11. One death from enteric fever, 1 from diphtheria.

San Francisco.—Week ended Feb. 28. Total deaths 88. An. ratio, 16.4. Diphtheria caused 2 deaths, acute lung diseases 12, phthisis 22.

New Orleans.—Two weeks ended March 9. Total deaths 164. An. ratio 20. Malarial fever caused 2 deaths, acute lung diseases 31, phthisis 28.

Havana.—Week ended March 8. Yellow fever 2 deaths, small pox 8.

The reported prevalence of yellow fever or of some disease closely related to it, at various points in the Southern States is not substantiated by any reliable evidence, but on the contrary careful enquiries made by health officers show that the state of the public health throughout the South during the past season has differed from that of corresponding seasons only in the greater prevalence of acute affections of the respiratory organs.

Gt. Britain.—Week ended Feb. 22. Average mortality in the 23 large towns, 26 per 1000, being 21 in Edinburgh, 24 in Glasgow, 24 in London, 36 in Liverpool, 38 in Dublin, 39 in Manchester. Whooping cough prevailed with marked fatality in London, Manchester and Sheffield. Small pox caused 82 deaths in London during the past four weeks, and 353 cases of the disease were under treatment in the hospitals on Feb. 22. Small pox caused 16 deaths in Dublin during the week.

Asiatic cholera has not prevailed at any of the ports of Morocco since Dec'r. 1st, and clean bills of health are issued to all vessels, but at Mogador a malignant form of diarrhoea is very prevalent, and has caused great mortality among the natives on account of their unsanitary mode of life. No accurate statement of mortality can be obtained, as the recording of deaths is in conflict with the Mohammedan tenets.

The Governor of Astrakan announces officially that the late virulent outbreak of the plague in that province has expired within the district included in the military cordon. The number of deaths at Wetlyanka was 600. The normal population of this village was 1,700 and almost every person who had not fled before becoming infected was attacked by the disease and died. There is no announcement of the orders for burning of the infected places having yet been carried out. The restriction of the disease to the original limits has been greatly favored by the natural isolation of the infected places, and the slight traffic existing in the district, the inhabitants but rarely leaving their villages, especially during the winter. Since the beginning of the outbreak, the principal road through the province has been obstructed, and all travel has been compelled to take a wide detour through the steppes. Strict Quarantine regulations have been established at all the ports of the Continent for vessels and goods coming from the Black Sea, and at the British ports the sanitary condition of all vessels arriving thence, is carefully inspected.

The sanitary condition of most of the cities of Eastern Europe is being improved in view of the possible extension of the plague on the advent of warm weather. For the Surgeon-General:

J. B. HAMILTON,
Surgeon, U. S. Marine Hospital Service.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by so doing will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

PLACENTA PRÆVIA; POST-PARTEM HEMORRHAGE; AND ACCIDENTAL HEMORRHAGE.

A Lecture Delivered before the Medical Class of Jefferson College, Philadelphia.

BY

ELLERSLIE WALLACE, M.D.,

Professor of Obstetrics, and of the Diseases of Women and Children.

[Reported for THE HOSPITAL GAZETTE.]

Placenta Prævia.—This is the name bestowed upon the position occasionally occupied by the placenta, *i. e.*, when it lies over the internal os uteri, so presenting a bar to the onward progress of the child and necessitating the occurrence of more or less hemorrhage when the woman goes into labor. As the internal mouth of the womb begins to dilate it tears itself away from the lower segment of the placenta and the blood of the mother flows.

As early as the middle of the sixth, or beginning of the seventh month, an abnormal discharge of blood may occur from the womb, but usually the woman pays no attention to this, or if she is overtimid she may perhaps send for you. *When you arrive she tells you that she has had a show.

In such an instance as this do not proceed at once to make a vaginal examination, but if the bleeding still continues put the patient to bed and keep her quiet, administering from gr. $\frac{1}{2}$ to gr. $\frac{2}{3}$ of opium and gr. ij. iij of sugar of lead in f $\frac{3}{4}$ ss. of the infusion of rose, if it be found necessary. We do not know why hemorrhage should occur at such an early stage. As a general rule, in such cases all you have to do is to keep the patient quiet and bide your time.

Three or four of these shows may occur, and you may have but slight trouble in stopping them until the neck of the womb begins to dilate in earnest, and in so doing tears the placenta loose from the uterine sinuses. In such instances, although the os uteri is but ever so little open, the hemorrhage is likely to be free.

If this severe bleeding persists, and the woman's condition becomes serious, proceed at once to make a vaginal examination. Pass the finger into the vagina. The external os uteri may or may not be taken up. However that is, you will at any rate find that the neck of the womb has softened, and you will be able to feel the placenta presenting at the inner mouth, and imparting to the fingers the sensation of a piece of raw beef.

When the os uteri is no larger open than the size of your thumb, the blood will pour out and the woman will die in a few moments unless she is properly attended to. If you can get the child out of the womb, and give it room to contract fully, all the danger is over. But how is this to be done?

You not only feel the placenta presenting, but

you also see that it is bleeding profusely. How is this hemorrhage to be stopped?

One says, introduce the finger into the uterus and separate the placenta from all of its uterine attachments. In the first place your finger is not long enough to do the work, and if it were long enough the woman would bleed to death before the placenta was half removed. I cannot imagine why so great a man as Simpson should give such advice as this.

Another says, tear away an edge of the placenta and deliver the child. If you do this you will most certainly deliver a dead child, for the hemorrhage caused by so extensive a laceration of the placenta is sure to kill the child.

I might argue for some time and with much force upon the various methods of treatment which have been proposed, were it not that I believe them all to be utterly futile and of no service. To my mind the question lies in a nutshell. We know that if we cork a bottle and turn it upside down, after filling it with water, that the water cannot escape. Upon this same principle, by corking the vagina we can stop the flow of blood and keep it within the woman's body.

My explicit advice to you in cases of placenta prævia is to tampon the vagina with sponge tents at once. If you cannot procure sponge tents, pack the vagina and mouth of the womb with bits of sponge or rags, with anything, in fact, I had almost said with a brickbat, so as to stop the terrific gush of blood.

I remember one of my earlier cases of placenta prævia very vividly. I was driving along one of our streets in my buggy when my attention was attracted by the sight of a horse and carriage bearing down upon me furiously from behind. Reaching me, the driver shouted out at the top of his voice, "Are you Dr. Wallace?" and upon my assenting replied, "Follow me at once," and turning his horse's head drove down a side street at a full gallop, with me close behind him. Propped up beside him sat a woman as pale as death. Suddenly the carriage stopped, the man threw the reins over the horse's neck, jumped to the sidewalk, lifted the woman up bodily out of the wagon and carried her into the house. Gentlemen, I do not exaggerate, but when that woman was lifted from her seat a mass of blood as big as my head fell from her body to the ground. There was not any time for delay, so I rushed after the man into the house and, comprehending the situation in a twinkling, shouted out my orders to him, as follows: "Run for your life to the nearest drug-shop, at the corner of so-and-so, open the door, look to your left, there stands a box full of sponges, seize two or three of the biggest, don't stop to pay for them, and get back here just as fast as you know how." Almost before I had time to place the woman in bed, throw off my coat, and roll up my sleeves, the man was back with the sponges. I tore the biggest one into bits and stuffed the vagina so tight that the blood could not flow, and saved the woman's life.

Some authors will tell you that if the rectum be overloaded in these cases some brisk cathartic should be given. Gentlemen, let the rectum alone; you will have plenty to do in stopping the hemorrhage promptly.

Well, we will imagine that you have been called to see the case in good season, and that you have stopped the rush of blood by stuffing the vagina full of sponges, or sponge tents, or bits of rag, or what-not. What are you to do then? Put on a T bandage and sit down and await developments.

Some say that this is all wrong; that if you do this the blood will still well away and dissect the placenta loose, and so allow internal hemorrhage, a much more dangerous form of hemorrhage than that which takes place openly. Do not believe it. You will find it troublesome enough to tear away a placenta from its uterine attachments with your hand; how impossible then must it be for any force of mere blood to dissect it away. The placental adhesions are very tough and strong.

Therefore I say plug up the vagina thoroughly and sit down and rest yourself, and send for a friend to share the burden of responsibility with you; or, if you are thrown entirely upon your own resources, plug the vagina and sit down and wait until you see fit to remove the plug, so as to examine if the mouth of the womb has dilated sufficiently to enable you to insert your hand into the uterus and break up the remaining placental adhesions and turn the child and deliver it.

When are you to know that this time has come? When the tampon begins to protrude from the vulva, and when it cannot be pushed back though much force be expended.

I remember a case which I saw in consultation with a friend, where, after waiting for a long while, we found the os uteri only about two and a half inches open. I passed my hand in and detached a small arc of the placenta and delivered the child in such a short space of time that the whole amount of blood lost was only four ounces and a half.

Some physicians prefer to use a Barnes' dilator instead of sponge tents, but we do not all carry Barnes' dilators about with us. A Barnes' dilator filled with air forms a most excellent plug for the vagina.

But you are still sitting beside your patient and waiting for some bearing down pains. Explain her condition to her family, but do not think of saying a word to her about it. Speaking of bearing down pains, the mere presence of the plug in the vagina will very often excite them. The presence of a great mass of sponge, or rags, or bits of handkerchiefs, or what-not in the vagina will produce rebellion of the womb and the woman will at once bear down.

Make it a point never to leave the house of a woman with placenta prævia until either all the danger is over, or at least until you can get some other competent and trustworthy physician to take your place. And follow in every case the rule which I have already laid down for you—*never remove the plug, even for an instant, until it begins to protrude*. So long as the vagina is well guarded by tampons the woman is safe; even if you have to sit at her bed-side for twenty hours waiting for developments.

Bitter hours these will be to those of you who may be forced to live them out. No man need want to attend a case of placenta prævia—ten times worse than puerperal convulsions is it.

Never wait longer than ten hours before changing

the tampon, taking out the old sponges soaked with blood and serum and placing new ones in their stead. Always make it a practice to carry a supply of sponges about with you in your country practice.

Why is it not proper to leave one set of sponges in the vagina more than ten hours? Simply because they become frightfully offensive and are liable to poison the woman's system. Before removing the old sponges have the new ones well greased and roll several of them up together.

Never talk of blood in a lying-in room. Whip out the old tampons as fast as your eager fingers can remove them. Have the woman first placed on her back, with her knees drawn up and well opened. After you have removed the sponges, thrust your hand in *quick* and while your hand acts as a tampon, feel with your fingers whether the os uteri has yet sufficiently opened for you to attempt the delivery of the child. If it has not, do not be slow in removing your hand and rushing in the new sponges. I tell you, gentlemen, the condition which we are now studying is one demanding exceeding promptness, a moment's delay at any time may be fatal.

If necessary, leave the second tampon in for ten hours. I call to mind a case which Prof. Penrose and I attended, where we took turns in watching the patient for over twenty hours, and where Dr. Penrose finally saved the mother and delivered a living child. Gentlemen, that was a splendid achievement. When that child was delivered it was followed by a loud sound-hiss-s-s-s and a clean spout of blood described an arc in the air and struck the ground five feet away from the bed without breaking.

Delivery must be made with great deftness and wonderful activity in these cases. Grease the hand well, pass it well into the uterus, forearm and wrist acting as tampons, separate as much of the placenta as is necessary, the least the better. Put your whole hand into the womb and turn the child. You can not turn a child under such circumstances with two fingers. Get above the placenta and feel round until you get hold of both legs, and moving as rapidly as may be without unduly exciting the uterine contractions, turn the child and bring it down feet foremost. *Hurry the labor for the sake of both mother and child. Deliver just as fast as you can without undue haste.*

The minute the child is born go right up into the womb and clear the placenta away and make the uterus contract by some of the means at your command. The placenta delivered, twist the membranes up into a rope, so as to be sure that you have left nothing behind. Then put on a bandage round the patient's abdomen, and go home and thank God that you have saved the mother's life if not the child's.

Remember what I have said to you. In placenta prævia the rule is tampon the vagina and mouth of the uterus immediately with big pieces of—well, of whatever is handy. Afterwards, while you are at work separating the placenta and feeling about for the child, get some one to push the womb well down from above, and always give a dose of ergot the moment you get hold of the child's legs. The lower part of the womb does not have half so much contracting to do as the upper after the placenta is separated. Be sure to secure complete contraction,

otherwise you will have very serious leakage of blood.

Placenta prævia is a very different matter from post-partum hemorrhage. If any one of you ever puts a tampon in a woman's vagina after delivery, he ought to be hung by the neck until he die.

A few years ago a broad-shouldered, fine-looking young fellow from somewhere away out in Minnesota, came on here about examination time, and calling at my office, said, "Doctor, I attended three full courses of medicine at Jefferson College many years ago, but was never examined, and as I had a little time to spare and shall be in the city for a day or so, I suppose I may just as well take my diploma now. Can you examine me this morning in obstetrics?" "Certainly," said I, "tell me some of the queer obstetrical cases you have had away out in the wilds; seen much post-partum hemorrhage?" "Oh, lots of it, Doctor." "Well, how have you treated it?" "Oh, tamponed the vagina, Doctor, tamponed every time." Gentlemen, that fine young fellow, I need not say, did not get his diploma from Jefferson Medical College then and never shall get it.

If you tampon the vagina in post-partum hemorrhage the woman will die by internal hemorrhage after delivery. Never tampon except in a little bit of an abortion. Why, gentlemen, the womb, when relaxed, will hold a dozen pints of blood or more, and what woman can lose that quantity of blood in addition to the hemorrhage attending labor and live? The contracted fibres of the uterus, unless they be like steel, cannot resist the welling blood.

There is another form of hemorrhage occurring before labor and known as accidental hemorrhage. This comes from the membranes inside of the womb. You put your finger into the vagina and find the mouth of the womb but ever so slightly open, and yet a stream of blood is slowly trickling down and out. What has happened here? The placenta is not presenting at the mouth. Why is there bleeding?

The carriage-wheel falls suddenly into a deep rut while the woman is driving or she slips off the step of the carriage, or a toad jumps out into her path, and causes a sudden shock to the nervous system and she bleeds. What has caused the bleeding? The jerk in one case, the mental shock in the other, has concussed the great system of nerves which preside over uterine action, and owing to a sudden irregular contraction of the uterus the placenta has become separated at some point, and from all the torn uterine sinuses the blood flows and runs down between the uterus and its membranes and so out by the vagina. This is what is called accidental hemorrhage, and you cannot put the placenta back and restore the continuity of its blood supply. What are you going to do? Why, if Mahomet will not go to the mountain, the mountain must be brought to Mahomet. If the bleeding is not stopped the woman will undoubtedly die, and if you tampon the vagina, the blood still continuing to flow from the open sinuses and coked up into the womb will cause internal hemorrhage without any sign. You must make the womb come to the placenta, as the placenta cannot be made to go to the womb. You must rupture the membranes and so cause the womb to contract

and settle down upon the placenta. The uterus, emptied of the amniotic fluid, will cling close to the body of the child, adapting itself to the foetal contour, and will bring the placenta down on the top of the child, and so compress it, and put an immediate stop to the hemorrhage.

In placenta prævia plug the vagina; in post-partum hemorrhage make the womb contract; in accidental hemorrhage rupture the membranes.

A CLINICAL LECTURE ON INFLAMMATION OF THE CAPSULE OF THE SPIEEN ATTENDED WITH CHRONIC THICKENING AND THE FORMATION OF PUS—CHRONIC GASTRITIS—LEAD POISONING—PLEURISY.

Delivered at the College of Physicians and Surgeons

BY
FRANCIS DELAFIELD, M.D.

Adjunct Professor of Pathology and Practical Medicine, and Director of the Pathological Laboratory.

(Reported for THE HOSPITAL GAZETTE.)

This man has been sick for some time past with malarial fever. Six weeks ago he began to complain of severe pain in his left side. Two weeks after the fever set in he went into a hospital and remained there for three weeks. When he left the hospital the fever was very much better, but the pain in his side still remained. He still has a little fever at night and is occasionally troubled with colliquative sweats. It is very easy to settle upon the original cause of the fever, for the man lived at Manhattan which is, as you know, a very miasmatic neighborhood.

The patient's appetite is now quite good and his bowels tolerably regular.

You have just heard the history. To make it more succinct let me summarize it for you;—the man has been sick for two months with fever: two weeks after the fever set in he went into a hospital, where he remained three weeks. Just about the time that he went into the hospital he began to suffer from pain in his left side. When he left the hospital his general health was much improved but the pain in his left middle abdomen still remained, together with some slight fever and sweat at night.

These facts would lead us at once to suspect that the man has been suffering from that species of malarial poisoning known as remittent fever. The pain is undoubtedly due to enlargement of the spleen, a condition which almost always attends or follows remittent, or continuous fever.

That I may examine the patient thoroughly I tell him to strip off the clothes down to his waist and lie down here on his back. As he lies here you will all notice at once that the left side of the chest and abdomen is fuller than the right. The left side is painful, too, at certain spots, and as I place my hand over the site of the swelling I come upon the edge of a hard body which can be very distinctly felt below the ribs. By careful percussion I am able to map out the limits of this hard mass very accurately in the front. To follow it round behind I am obliged to ask the man to stand up. The area included within these crayon lines corresponds exactly in shape and locality with the area covered by an enlarged spleen, so that the suspicion aroused in my mind be-

fore I examined the case physically is probably the correct one.

But the appearances of this case are not those of simple enlargement of the spleen consequent upon malarial poisoning. In such cases it is not customary for the spleen to bulge out the lower part of the thoracic cavity. As a general thing in this disease the enlarging spleen finds plenty of room for itself by sinking down into the abdomen and so exerts no upward pressure whatsoever upon the ribs.

Another point of distinction between this case and that ordinary splenic enlargement following malarial infection is shadowed forth in the color and texture of the skin over this man's spleen. The skin is thick and brawny and more adherent to the ribs than is natural. I cannot, on this account, succeed in identifying at all the intercostal spaces throughout this indurated portion of the integument. The skin looks like a surface which had gone through an extended period of blistering, and yet, when I come to question the patient I find that the only counter-irritant applied has been iodine, and this substance can in no instance give rise to such deep seated induration. Indeed further examination convinces me that this change in the texture of the epidermis extends into the periosteum which is itself thickened.

The tumefied mass is dull upon percussion, and in addition to this, as I have already told you, there is pretty well marked tenderness over its site. The questions that now arise are; (1) what is the nature of the tumor, and, (2) what does the inflammatory condition of the skin point to. The answer to the first question has already been given, but how is it with regard to the second?

Abscess of the spleen is such an exceedingly uncommon condition that we can with propriety put it entirely out of the question. If the skin over the liver were indurated as much as is the case here I should say at once that it was a case of hepatic abscess, but splenic abscess is very rare. There is, however, a condition of the spleen which does occur quite often, and that is inflammation of its capsule. As a usual thing this capsular inflammation only produces thickening. In more acute cases, however, it goes on to the formation of pus. This is quite possibly the true condition of affairs here.

I should, then, proceed to pronounce the case to be one of malarial enlargement of the spleen, followed by inflammation of its capsule and the final formation of pus upon the external surface of the spleen and between it and the abdominal and thoracic walls. The formation of pus thus virtually makes the case one partaking of the nature of an abscess inasmuch, as the inflammatory and induratory processes which always attack the tissues in the neighborhood of an abscess have made themselves apparent here in the walls of the thorax and abdomen and in the skin covering the area of dullness. This thickening process explains very satisfactorily the impossibility which I experience of mapping out the intercostal spaces. The abscess, understand me, is over the site of the enlarged spleen and between it and the walls of the thoracic and abdominal cavities. This abscess is very thin and cannot possibly contain much pus.

The prognosis, in this case, is very good. The improvement which has thus far taken place has been steady and will, no doubt, so continue. The pus will

probably either open its way out through the thoracic wall between two ribs, or, and this is the much more probable of the two suppositions, will dry down and become metamorphosed into a thin layer of dry cheesy matter.

The treatment shall in future consist in the administration of quinia and arsenic. The quinia must be persevered in until all the phenomena of fever have disappeared. The arsenic is one of the best alteratives known. As regards counter-irritation we will entirely dispense with it for the present.

CHRONIC GASTRITIS.

This woman is a German, and gives a history of five years of almost persistent vomiting, or rather, she modifies this statement and says that up to a couple of months ago the vomiting was only occasional, but that within the past sixty days she has vomited every day and upon some of the days she has vomited all day. One day, in particular, she remembers, upon which she vomited steadily from seven o'clock in the morning until ten o'clock at night. She was not of course, actually vomiting all this time, but merely going through the movements of vomiting. She says that vomiting is always excited by the presence of food in her stomach, so that she has at times been utterly unable to eat anything, or at least, to retain it. In spite of all this famishing experience, however, the patient is still quite well nourished in appearance. She has considerable pain over the abdomen and this pain is worse at some times than at others, particularly is it worse when she is in the act of vomiting. Her heart's action is perfectly regular and her tongue quite clean. She is still better nourished than the majority of women.

These cases of vomiting in women are somehow or other, never as straightforward as in men. If a man should come to you for treatment with such a history as this woman brings you you would not find him in anything like as well nourished a condition as this patient shows. His actual condition would correspond much more closely with his history than is the case in this instance.

This woman tells me that she has been fatter and that she has lost a good deal of flesh, but it is hardly possible to conceive that she has been two months without retaining any food to speak of and yet present as well fed an appearance as she does. This is always the difficulty in these cases, for women very frequently come to the physician with just such a story as this patient brings, and he finds the woman in good color and apparently well nourished. In such cases it is very hard to go against manifest appearances and believe the story told, hard to be obliged to allow that a woman can go without food for a long time and yet show none of the usual evidences of lack of food. In fact you just have to take the case as you find it, and acknowledge the manifest difficulty in diagnosis and direct your attention at once to the treatment. Such cases rarely happen in men.

There are three possible explanations of the conditions here, allowing of course that the history given is a true one. (1) The existence of a chronic gastric catarrh (2) An ulcer of the stomach, and (3) that the vomiting is due to no lesion of the stomach whatever, since none exists, but is dependent upon causes of which we can have no accurate knowledge,

such as uterine displacements, or disorders and insidious spinal irritability.

I am inclined to believe that this case is one of chronic gastric catarrh, which assumed a low grade at first, but which latterly has been more acute, and the vomiting, therefore, more frequent. The woman's bowels are regular. This is unusual—ought not to be. In such cases the bowels are not commonly moved more than once in many days. She is very much troubled with flatulence. Since she has been sitting here you have, no doubt, noticed how the wind regurgitates from her mouth. This latter symptom is more usually found attending cases of vomiting where there is no lesion, although it is sometimes associated with simple chronic gastritis. My final belief then is that this is a case of chronic gastritis attended with vomiting, pain, and a certain amount of flatulence.

The patient says that even milk will not lie quietly upon her stomach, but that she always vomits it. However, this is no substantial reason why she should not be put upon a carefully regulated milk diet. With regard to treatment, therefore, I think that the woman should be at once put to bed and kept quiet in bed, and that her diet at first should consist solely of milk. This milk at first should be given in small quantities and quite frequently. She should take a tablespoonful every half hour out of a tumblerful of milk containing five drachms of the bichloride of sodium, or lime-water. These tablespoonful doses should be kept up regularly through the day and be given at night when she is awake. Than this she must have no other food for a week at least. At the end of that time I would begin to add a little meat in the shape of beef or mutton cut very fine. This meat should be given only at the middle of the day. If the addition of the meat does not produce vomiting, or rather bring back the vomiting, you may go on with it and at the same time administer the milk more freely. If she cannot stand the meat you must return of course to the milk and so you must go on until the time comes when by degrees her stomach can be brought into such a condition as to bear the ordinary diet.

I think that this is by far the best way of managing these obstinate cases. As I told you before, it is possible that this woman's story may have but very few grains of truth in it, indeed I am always in such cases in such a state of mind that I do not know whether or not to believe such stories. Where this is so I usually try to treat both possibilities at once.

[It may be of interest to dot down, just here, a case of much similarity with the above which Professor Da Costa recently lectured on before his class at the Pennsylvania Hospital, Philadelphia. It was that of a girl 25 years of age, with phthisis in her family, who had begun to menstruate at the age of 17 and stopped at 20. She came into the hospital with a history of incessant vomiting for a year, during all which time she had lost at least two meals out of three each day. The vomiting came on immediately after meals, and sometimes between meals. She was originally stout and hearty, but the constant vomiting had made her thin and pale. Occasionally she vomited at night. She was admitted into the hospital and her story authenticated by observation. The vomited matters consisted altogether of mucus

mixed with food. Her tongue was flabby and slightly coated, and there was some tenderness in the epigastrium and about the middle of the spine. Her bowels were constipated. The respirations, heart and urine were normal. Vaginal and manual examination revealed retroflexion of the womb. By means of the treatment pursued the vomiting was completely stopped in the course of three days. This consisted in the application of an ice bag to the spine every few hours, leaving it in position each time until the skin became completely chilled. Together with this external treatment the nervous irritability of the coat of the stomach was subdued by small doses of the bromide of sodium—from ten to fifteen grains thrice daily, together with this an occasional purge, was given. The vomiting was clearly shown to be due to the nervous condition of the stomach produced by reflex irritation from the retroflexed womb.—*Reporter.*]

LEAD POISONING—ITS TREATMENT.

This man has had a feeling of weakness and lameness for some two months. About four weeks since he first experienced a severe pain in his stomach. He says that he never had painter's colic, but he is at present, and indeed has been for some time past, working in a paint factory. He does not think that he has grown any thinner since his indisposition began, but he thinks that he sleeps less well at night. The pain is constant. He has not had any headache, and there has not been at any time either nausea or vomiting. His appetite is good. He thinks that eating increases the pain. His bowels are regular, and he has no pain before their movements. He has lost strength considerably during the past four weeks, and is considerably paler than formerly.

When I come to examine him I find the pathognomonic blue line well marked. Moreover, although the patient says that he has never had lead poisoning, all his symptoms and all the facts of his history point in that direction. I examine his abdomen physically, merely as a matter of routine, but find no foreign growth there, and nothing else to account for his symptoms, which are all plainly traceable to the lead poisoning. There is no palsy in any part except some slight stiffness in one of his legs, the result of an old attack of hemiplegia, which he had some twenty-three years ago. His face and hands are pale, and his flesh is generally in a flabby condition. The case is a very mild one, indeed, of its kind.

As regards treatment there is nothing to do but to follow the well-worn routine in the case, and give either the iodide of potassium or sulphuric acid, sometimes one is better, sometimes the other. I usually try one, and if that is not well borne have recourse to the other.

Sulphuric acid is not near so likely to disorder the stomach as the iodide of potassium. In fact there are several inconveniences occasionally attending the use of the latter drug. In some people it produces inflammation of the mucous membrane of the nose and pharynx, so giving rise to a sort of artificial hay-fever. Indeed, I have seen the most profuse flow of mucus from the nose attend even a five grain dose—the mucus pouring out in a steady stream. Another of its inconveniences is that now and then we meet with some one who cannot take it

without losing all his or her appetite, and bringing on an almost acute attack of dyspepsia.

Sulphuric acid is therefore preferable in the majority of cases as it is far less likely to do harm. I prefer it and always use it first, and if it fails I then have no resource but the iodide of potassium. This is what I shall give in the present case, *i. e.*, dilute sulphuric acid in twenty drop doses four times a day. These twenty drops must be diluted each time in a large wine-glassful of water.

LEFT-SIDED PLEURISY.

This patient is a longshoreman, and as you may well imagine has pretty rough work to do and is of necessity exposed to all sorts of inclement weather. Three months ago he caught a very bad, cold attended with a dry cough and great hoarseness. No phlegm was raised by the cough, and being strong and eager to work, and not feeling sick, he continued to work and did not take care of himself, as he should have done. At first there was nothing but the cough, no blood was raised at any time, but about three weeks ago a sharp stitch of pain first ran through his body and this pain has lasted ever since. At first it shot all over his left side, but now it is pretty well confined to one place. This pain was very severe when he coughed.

He has lost flesh greatly and his appetite is almost completely gone. Now and then he has some fever at night and in the afternoon, but at no time has there been any sweating. Though often sick at his stomach after a fit of coughing, he has never vomited. The coughing always comes on in spells. He coughs for five minutes at a time, and when the fit is over he feels like a rag and has no breath left in him. He has lately raised a little phlegm upon one or two occasions, but it has never amounted to much. Lately his cough has been attended with a great deal of pain in the back and loins. The man to-day looks very far from well.

Examining the chest by percussion and auscultation I find that the resonance is good on both sides on the front of the chest, so too, with regard to the breathing and transmission of the vocal fremitus in front. The heart is regular and its sounds are entirely normal. Coming to the back I find that the percussion note is excellent on the right side, and that the respiratory murmur is altogether normal. The voice, too, is transmitted clearly. At the back of the left chest, however, the percussion note at a spot a little more than midway down becomes dull—the dullness on this side extends full two inches and a half higher up than it should in health. I lose the respiratory murmur also at just the same point. The vocal resonance stops there too.

There is only one thing which will explain the man's condition—it is a case of pleurisy. The attack could not have been a very severe one, for there is but very little fluid. If he had stopped work when the cough and hoarseness first set in he would have been well long ago. The most sensible thing that he could do now would be to stop work altogether and go into some hospital. He does not want medicines. There is but a very small portion of the pleura involved. All that the case calls for is plenty of good food and rest joined with the occasional application of small blisters over the site of the pleurisy.

ORIGINAL ARTICLES.

THE CAUSE AND PREVENTION OF PUERPERAL FEVER.

BY
WILLIAM H. PARISH, M.D.,
Obstetrician to the Philadelphia Hospital.

At the present day, the identity of puerperal fever and of puerperal septicæmia or puerperal pyæmia is well nigh a generally accepted fact. There are but few advocates of the teaching that puerperal fever is an entity, is a fever *sui generis*. There are but few who believe it to be a specific fever dependent upon a peculiar poison, one capable of producing puerperal fever only. The most prominent among the holders of this faith is one conspicuous not only because of his individual views on this subject but because of his recognized eminence as authority in all that pertains to puerperal diseases. However the same authority appreciates the importance of septicæmia and pyæmia in reference to deaths following confinements, though believing such blood-poisonings to be distinct from that pertaining to what he terms puerperal fever. To establish the negative of the latter proposition would be extremely difficult. The burden of proof, too, would seem rather to rest with those holding to the assertion of the existence of a specific puerperal fever; and not with those who are arranged on the negative side of the question. I cannot receive the proposition as proven. Observation has led me to look upon septic or pyæmic poison as the one sufficient factor in the causation of every case, sporadic or endemic, of puerperal fever with which I have met. A number of years of service in the Lying-in wards of the Philadelphia Hospital, has given me opportunities not equal to those of many observers, yet not inconsiderable, of observing puerperal fever, often sporadic, at times endemic and occasionally frightfully fatal, in that institution.

As in every large general hospital, especially if an old one, there is much of septic material being daily formed adding to the accumulations, still active, of months or possibly of years. The poison is always present, and so cases of puerperal septicæmia occur almost monthly. Were it not for the measures taken to prevent infection it would always be present in an endemic form. When epidemics have occurred this occurrence seemed to be traceable to a relaxation in the rigidity of the observance of measures of prophylaxis. The septic matter is abundantly present in the decomposing organic material inseparable, to some extent at least, from diseases pertaining more especially to the surgical and venereal wards, but also to be found in the medical wards and in the wards for diseases of women. The autopsy room too is a very hot-house for the rapid development of this poison.

From all these sources and from others must be combatted the inroads of the subtle agent. The isolation of all these sources is an object aimed at. How difficult it is to attain to it is thoroughly appreciated by every one familiar with general hospitals. Added to these prolific sources of poison must be remembered the decomposing organic materials often incident to the puerperal state itself.

The great majority of cases are due, however, to

external infection. Especially is this true of endemics, the poison being transferred from patient to patient. The beginning of the endemics has usually been, with at least great probability, traceable to sources outside of the obstetrical wards, but not always. The most virulent series of cases that have come under my observation seemed to have its origin in a case of general peritonitis, itself traumatic in origin. A patient suffering from inflammation due to deep perineal laceration, or to other serious lesion, may abundantly develop septic poison. A fever traumatic in its beginning may, uninfluenced by agencies from without, in its progress in the same individual, partake of all the characters of puerperal fever, and may thus prove the fountain source of a severe endemic. This fact must be borne in mind; otherwise a source of danger is left unguarded. I do not now desire to refer to pyæmia as distinct from septicæmia. The recognition of ANY decomposing organic material as an agent fraught with powers capable of producing puerperal fever carries with it a most vital deduction. And that is the pressing paramount duty of prophylaxis. There is mortal danger in failing to accept the fact that puerperal fever has its origin in sources other than those puerperal in nature.

Then comes the important question, in what consists prophylaxis? It consists in all measures that that are antiseptic in action.

Among these is the avoidance, as far as practicable of contact with septic material by all persons visiting the room of the lying-in woman, the absolute cleanliness of person and of clothing of all attendants, and of patients. The wearing apparel of both Physicians, and of nurses in close attendance on puerperal women in hospitals should be of wash material. Instruments (including the catheter and the syringe should be used and cleansed only by physicians, or by nurses more than usually intelligent and careful. Bedding should be frequently changed. There should be used mattresses made of straw or other cheap and inflammable material and to be destroyed at short intervals. All bedding and other wash material should be boiled at a high temperature, instruments and hands of attendants should be washed with water containing carbolic acid or other antiseptic agent, and when used should have been anointed with carbolized oil. With such and similar measures observed in detail, I cannot think it necessary or safe to use intra-uterine or vaginal washes with every patient confined. If the lochiæ are too abundant, or offensive in character, or there be evidences of septicæmia, then should such washes, made antiseptic, be scrupulously resorted to. But in the absence of these conditions and with the sources of external infection cut off, the manipulations of vaginal or of uterine syringing may themselves prove the source of poisoning. Especially does this seem the case when we remember with what ease a non-absorbing granulating surface may be converted into a raw absorbing one by the rubbing off of granulations. The possibility of injected fluid, impregnated with lochial discharge, traversing a patulous fallopian tube must also be remembered. I have no experience with the use of carbolized spray thrown over the genitals at the time of confinement, but I doubt its value or even its freedom from important objection.

In private practice when the physician finds one of his patients attacked with puerperal fever should he abstain from soon attending other patients in confinement? Certainly if he finds the fever following him from house to house he should. But with proper antiseptic precautions I doubt if such would ever occur. I have never seen a marked case in private practice although engaged in confining private patient at the very time when puerperal fever was endemic in the Philadelphia Hospital. Such too is the experience of others in this city. This fact does not go to establish the non-communicability of the poison, but does show that with proper precautions it is not manually transferred although "manually transferable."

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for the HOSPITAL GAZETTE. By E. HUCHHRIMMER, M. D.
House Surgeon.)

AMPUTATION OF THIGH FOR DIFFUSE POPLITEAL ANEURISM.—DEATH ON TWENTY-FIRST DAY.

Mary M. was admitted to the hospital February 26th with the following history: She was habitually intemperate, but denied having had, and showed no sign of, syphilis. When about ten years of age she had sustained a fracture of the right femur at the junction of the middle and lower thirds, from which she recovered without difficulty. Six years ago she had an attack of erysipelas of the right knee, and another about four years ago; both of these subsided, leaving apparently no evil result.

About three weeks before admission she was seized with a chill, with pain in the right knee; knows of no way in which she injured the knee. On the following day a lump about the size of an orange appeared in the right popliteal space, the leg was flexed upon the thigh and was hot and painful. Previous to her admission to the hospital, the elastic bandage had been applied twice, four hours each time, without producing any visible effect. The tumor had steadily increased in size and become more and more painful.

On admission her general condition was not very good; she was weak, and had apparently been much reduced by the great pain which she suffered. The foot and leg were œdematous, and on the side there was a granulating patch about two inches in diameter, left by the separation of a slough. The tumor extended from the condyles of the femur to the upper part of the calf; it was tense and shiny, distinctly pulsating, and with a well-marked bruit.

During the first three days of her stay in the hospital her condition remained unchanged, except that the œdema disappeared from the foot and lower leg; the tumor became more tense; on the fourth day the pulsation disappeared, and on the fifth the bruit was inaudible. It was decided to amputate the thigh March 5th; for the two days previous the tumor seemed on the point of bursting, and just before the operation the skin did actually give way. The limb was removed by antero-posterior flaps, the femur being sawed through about its middle. After the operation the patient rallied well

from the shock, and seemed in fully as good condition as before. An examination of the amputated part showed that the popliteal artery was ruptured about its middle; all the tissues below that point and down to below the calf were infiltrated and broken down. The knee-joint was invaded, and the tibia, fibula and femur markedly eroded.

From March 5th to 17th the temperature varied from $99\frac{1}{2}$ to $100\frac{3}{4}$; the last ligature (the femoral) came away March 14th; the edges united through the greater portion of their extent, the granulations were healthy, and the discharge moderate in quantity. On the 18th the patient seemed to be about suddenly to sink; the pulse was very feeble and the respirations increased in frequency; the temperature rose to 103° . The next day she was much better, but noticeably weaker. She remained in this condition until March 23d, when her urine began to grow scanty and her mind sluggish; the stump continued apparently doing well. She became more and more lethargic, the suppression of urine increased; finally coma set in and she died March 25th.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JNO. A. WYETH, M.D.

R. MEYER-HUNI (ZURICH) NURSERY PIN IN THE LARYNX AND OESOPHAGUS FOR 140 DAYS.

A girl, æt fifteen, while holding a "safety pin" between the lips, was struck by the body of a playmate who was in the act of falling, and the pin was swallowed. It was supposed to have passed through the alimentary canal, as there was no local disturbance excepting slight derangement of the voice. 140 days later the laryngeal symptoms became more acute, the voice was whispering, cough since eight days, but respiratory acts not more frequent than normal. Examination with the laryngoscope revealed the mucous membrane on the under surface of the epiglottis in both ventricles, and the false cords much swollen. The anterior commissure of these being filled by the puffed up membrane. In the middle of the inter-arytenoid region, one extremity of the pin was seen projecting through about 1 c. m. ($\frac{3}{8}$ inch). Externally, the outline of the metal could be seen extending forward to the root of the epiglottis just above the anterior commissure of the rima glottidis. It was extracted by means of a forceps, with no little difficulty. The laryngitis disappeared in two weeks.—*Centralblatt für Chirurgie*, p. 5, Jan. 4, 1879.

VAN TREKELEUS.—COLOSTOMY.—STATISTICS OF 262 CASES.

(*Arch. für Klin. Chir.*, Bd. XXIII, Hft. 1, p. 41.)

After *Amussat's* method, 165 operations with 63 deaths—death rate 38 per cent. After *Littre's*, 84 cases and 39 deaths. Mortality, 46 per cent. Other methods, 13 cases with six deaths, or 46 per cent. Total, 262 operations with 108 deaths, or 41 per cent. Causes of operation; carcinoma, 110; stric-

ture, 49; atresia, 44; obstruction, 43; fistula, 16.

The method of *Littre*, which opens into the peritoneal cavity, does not give a much greater death rate than that of *Amussat*, which goes behind this membrane. *Amussat's* operation Van E. considers more likely to be followed by erysipelas and abscess, and is more difficult to perform than *Littre's*. Lastly the artificial anus, after *Amussat*, is not so comfortable as the other method i. e., *Littre*. He therefore commends the latter operation.—*Ibid*, p. 6.

LORETA.—POGGI.—161 CASES OF STRICTURE OF THE URETHRA.

Treated by gradual dilatation, 18. Holt's Divulsor 12. Maisonneuve's Urethrotome, 118. External urethrotomy, 13. Then 118 cases were divisible into three groups, viz: 32 with no bladder or renal complication (excepting eight cases of ischuria) all of these 32 cases cured—one with peri-urethral abscess; one cystitis; 45 were mildly complicated, viz: 8 with urinary fistula; 9 with abscess; 4 with urinary infiltration; 24 with chronic purulent cystitis and acid urine. Of these one died of erysipelas and pyæmia; rest cured. Forty-one cases seriously complicated, viz: 28 with cystitis and alkaline reaction of urine, 3 died; 13 with kidney lesions and six deaths.—*Ibid*, p. 11.

SQUIRE.—RODENT ULCER (FLAT EPITHELIOMA) OF SKIN TREATED BY REMOVAL WITH A SHARP SPOON.

S. reports 3 cases by this (Volkmann's) method.

(1) Male, æt. 72. Rodent ulcer 11 months duration in front of right ear, $\frac{1}{2}$ inch in diameter. Local anæsthesia, ether spray. Ulcer, including indurated margins scooped out by sharp spoon. Healed in 14 days; 6 months later no return.

(2.) Male æt. 55. Had suffered 6 years with rodent ulcer right side bridge of nose, $\frac{1}{2}$ by $\frac{1}{4}$ inch. Scooped out as above, patient under chloroform. Wound cauterized. Healed in a month. No return 6 months later.

(3) Male æt. 78. Rodent ulcer $1\frac{1}{2}$ by 1 inch broad, duration 4 months, right cheek. Induration of neighboring lymphatics. Operation same as above. Repeated several times; still remains small ulcer size of millet seed.—*Central. for Churgie*, No. 1, 1879. p. 12.

GOWERS.—GENERAL ALOPECIA WITH EPILEPSY.

1) Male æt. 54. At 11 years of age had had severe attack of fever, after which his hair began to fall out, until at 30 he was completely bald. At 40 the beard fell, and a little later the eyebrows, lashes and the hair about the genitals. At 50 the first epileptic fit, which occurred afterwards every 3 or 4 weeks. No syphilis, no heredity, no alcohol.

(2) Male æt. 49. At 25 he received a severe injury of the arm which was followed by general and complete alopecia, 5 years ago, as result of a fall on his head, epilepsy. Attacks every other day. No syphilis nor heredity.—*Ibid*.

LEDIARD.—INTESTINAL OBSTRUCTION—GASTROTOMY—DEATH.

Male æt. 20. Five days ago seized with sudden

and severe pain in abdomen. Evening chill and afterwards vomiting. Two days later last fecal discharge accompanied by internal abdominal pain. Fifty ounces water injected per rectum. Evening of 4th day as symptoms were more alarming, operation. Adhesion between small intestine and abdominal wall. Occlusion from constricting band springing from omentum and crossing the gut, which was divided. Still followed by stercoraceous vomiting. Sudden death in 34 hours. *Autopsy*: Small intestine much distended and inflamed. In the pelvis 5 inches of the ilium was found bound down to the promontory of the sacrum by a constricting band formed from the omentum.—*Ibid.*

GOSSUIN—FRACTURE OF PUBIS—RUPTURE OF THE
BLADDER AND URETHRA.

Patient, male, while felling a tree was caught under it and the pubis fractured. Severe and immediate pain in the pelvis and perineum. Hemorrhage of urethra. Says he did not urinate for ten days after accident. At this time G. saw him and attempted to introduce a sound, but on account of stricture, failed. Found two fistulæ from which there was a constant flow of urine. Not a drop escaped by meatus. Pelvis covered with ecchymoses and pubis fractured. Discharge by fistulæ partly voluntary and partly involuntary. He was of opinion that the retention immediately following the accident should have been treated by supra-pubic aspiration, which would have possibly prevented the formation of urinary fistulæ. Believing that there were several of these, he felt sure that the operation of external urethrotomy would not succeed in restoring the urethra, and that therefore nothing could be done more than to attach a suitable urinal in order to make the patient as comfortable as possible.—*Gazette des Hôpitaux, Jan. 11, 1879, p. 26.*

KREUDMANN.—THE DEPRESSOR NERVE IN MAN.

K. believes to have demonstrated this nerve in man (which was discovered by Cyon and Ludwig in 1866 in the rabbit). In the rabbit it is found separate from and between the *vagus* and *sympathetic*, arising by two roots, the larger from the superior laryngeal branch of the pneumogastric, and the smaller coming directly from this last nerve a little below the superior laryngeal. Lower down it joins with the sympathetic or *vagus* to go to the cardiac plexus, or it may run directly to this plexus.

In the human subject he found that after removing the sheath of the *vagus*, the filaments of this nerve separated themselves into several (usually three) bundles. The most internal of these gives off the superior laryngeal, and this is a branch which joins with a second root from the inner or middle bundle to form what he calls the "depressor nerve of man."—*Ibid., p. 81.*

A FRENCH CRITIC ON CLAUDE BERNARD'S SUCCESSOR.

I was present at one of Brown Sequard's first lec-

tures and was struck with his contempt for accepted theories. It amounts almost to aversion. He in an iconoclast in his department of science, tearing down not only the theories of others, but even his own, which were the deductions of marvellous experiments. As a theorist he is audacious; not aspiring to build a lasting edifice, he is content to erect a tabernacle, a place of rest, amid the ruins of accepted theories. He fears lest this unsheltered desolation may frighten timid spirits. Moreover he says that theories always possess this much of good; they invite antagonism and make us labor to prove or disprove them. They give way to each other in rapid succession in times of progress and when they do not exist, it is proof of intellectual laziness and decay. For this year he has chosen as his theme "the criticism of the theories of localization and of all the reigning doctrines concerning the nervous system."

In listening to him, one is startled at the boldness of his views, and yet 'tis the voice of the charmer who knows well the art of ingratiating himself with his audience and of subjugating the most rebellious. Dr. Victor Revillout.—*Gas. des Hôp. Dec. 12, 1878.*

TWO CASES OF GLANDERS IN MEN—BUCKMANN.

(1.) Soldier, in good health received a lash from a whip, in the face. The owner of the whip had horses suffering from glanders. Six days later he came under observation. There was slight suppuration at seat of injury and the neighboring skin was red and swollen. High fever—joints of upper extremity heavy and swollen; eleventh day blue spots appeared at wrist and ankle joints, 4 by 2 c.m. broad and occupying the dorsal surfaces—thirteenth and fourteenth the fever declined—nineteenth, wound in face, black, spreading, covered with blisters which are filled with black fluid. Face more œdematous—abscesses on extremities. Cough and dyspnœa, etc.—twenty-sixth day, death. *Autopsy*. Two abscesses in left lung size of walnut, and numerous smaller ones occupying hyperæmic foci.

(2.) Male aet. 47, sound and strong. Consulted Dr. B. about three abscesses, bluish red in color and (size of hazelnut) on left thigh. Contents of reddish yellow color escaped on incision. On being asked if he had received any wound lately, patient showed scar of a wound over the second joint of the left little finger, which had been caused by striking it against the door of his horse stall twenty days before. He denied having any horses affected with glanders, but his wife stated that fourteen days after the death of the soldier just given, one of her husband's horses had been killed on account of a "throat sickness." Twenty-four days after the wound the abscesses were suppurating freely, right arm swollen, doughy and pale. Incisions gave vent to a reddish watery fluid. Febrile movement not marked. Thirty-fifth day, the left hand including original wound was much swollen. Forty-fifth day, pain and swelling of right knee. Forty-ninth, fever very high, delirium, erysipelas on nose. Fifty-first day, death.—*Deutsche Medic. Wochen., Oct. 26, 1878, p. 536.*

THE HOSPITAL GAZETTE,

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

EDWARD J. BIRMINGHAM, A.M. M.D. *Editors.*
FREDERICK A. LYONS, A.M., M.D.

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NEW YORK, SATURDAY, MARCH 29TH, 1879.

EDITORIAL.

QUALITY, RATHER THAN QUANTITY.

It is our duty to extend a hearty welcome to the young men who have just entered into the profession. Such has been our practice, and in its observance, we have been amply repaid not only in selfish consciousness, but more pleasantly in being reminded that our words of welcome encouraged noble aims, which developed into realities. To the recent graduates, we desire to add our congratulations, and urge them to continual contemplation of the grandeur of their mission, that they may be thoroughly imbued with a sense of the responsibility they have incurred. Their success will be strictly measured by such reflections, determining themselves into purposes of action, guides for conduct.

If we would emphasize any wish, it would be that from the outset, each beginner should cultivate a moral courage that would dispel pride, "the never failing vice of fools," the almost universal blemish, and seek aid from older hands, and take counsel from experience.

Having been thus comprehensive, we cannot enforce our welcome better than by making reflections which have separately urged themselves upon us, but have been delayed for a more convenient season. Frequently, of late, however, the laity have charged upon the profession proper, such remissness as prevents us from remaining quiet longer, and we admit we have temporized too much. There is a growing feeling of discontent in the minds of the masses with the standard for so called graduation in some of the medical colleges, and parties unfitted, morally and intellectually, are given diplomas.

Every incompetent *diplomaed* by a medical college is a legally authorized murderer. Such violent expressions generally are strained figures of speech employed to strike the reader with force, to startle him, but this one, embodying a terrible truth, is tame in sight of the reality, and insufficient.

The fledgling of the medical profession goes forth into the world endorsed by men whose reputations have been acquired through years of skillful training and practice, and is received by suffering humanity, keenly alive to the value of their own existence, and looking confidently to the preserver of that exist-

ence, when endangered by disease, as a master of their persons, almost a controller of their destinies. It is not vain to speak truthfully of ourselves in the interest of right, therefore it is that we say that a feeling akin to worship is offered by patients to their medical advisers, and the profession has been invested with a mystery that even courts of law and family ties respect.

Since the profession naturally exacts this tribute, how easy it is to infer that the beginner receives his share of homage; especially as the novelty of his position must make him anxious to furnish full pyrotechnic display with his each and every opportunity. Guided by his natural propensities, whether leading to rashness, to sloth, to discretion or to study, he seizes the opportunity afforded, and deals with the question of life or death, because he has a diploma of a medical college. If prepared, so far as careful study, observation, peculiar adaptation and good counsel can prepare him for the task, how far short does he find himself in a multitude of cases. How he yearns for more light, struggles after hidden truths, implores divine assistance, and forgets rest and comfort for himself, receiving them with the first gleams of triumph, showing themselves in his efforts for his patients.

What is true of the conscientious student entering upon his professional career is equally true, to the extent of the trust reposed upon him and investiture with sacred surroundings, of the incompetent fellow into whose hands a diploma entitling him to practice medicine has come. The same welcome is extended to him by the mass, who, having spent their years allotted for study in fitting themselves for the peculiar line of business or trade for which their parents designed them, had neither time nor inclination to inform themselves at all, or but slightly, of anatomy, physiology, or hygiene. Indeed, the struggling devotee fares poorly at first, compared with his rival, for merit hides itself beneath modesty, while "fools rush in where angels fear to tread."

It is idle to dwell upon the disastrous results of the efforts of these miserable murderers. They are too well known: to relatives who mourn the loss of loved ones, to the profession that tolerates the monsters who cause them.

Where shall the responsibility for this outrage be fixed? We unhesitatingly say that the greater blame devolves upon the members of the faculties of the colleges. These gentlemen are permitted to grant diplomas, and in fact to determine the standard for the grant. In the adoption of the standard, and in the examinations necessary for the degree, there are faults, very serious faults, inuring to the pecuniary advantage of the college, but destructive to the profession. These must be remedied. The profession owes to itself, and to confiding patrons, that immediate and effective measures be inaugurated to stem the tide of *diplomaing* doctors. We would not divert the word *graduate* from its proper sphere; therefore we style the process gone through *diplomaing*. Whatever may be the controlling motive, whether students' fees, empty professional honors, or mental aberration, the time has come when the professors who let loose these butchers of humanity shall be held accountable for their work. The thin guise of respectability with which offend-

ers sought to cover misdeeds has been badly rent lately by courts of law, and honored citizens have been dragged from their mansions to less luxurious apartments in the common jail because they attached their signatures to statements of accounts not correct in all particulars, carefully prepared by experts. The profession will rejoice when the same strong arm is stretched forth to free it from the curse of faithless diploma granters.

SELECTIONS FROM JOURNALS.

THE NATURE OF INFLAMMATORY CEDEMA.

O. Lassar has investigated the interesting question whether the swelling observed in inflammation, and which undoubtedly depends on increased transudation, is due to arrested or obstructed absorption, or to augmented velocity of the lymph-current. He established acute inflammation in the hind foot of dogs, and introduced cannule into the greatly dilated lymphatics accompanying the vena saphena parva. Prior experiments showed that in the normal condition not more than from two to four cubic centimetres were discharged from these vessels, whilst from the inflamed leg twenty to forty or more cubic centimetres were discharged. The increase of the lymph-current was not referable to the pressure of the exudation at the injured part, since, if the cannula were inserted before the establishment of the inflammation induced by dipping the leg into hot water, the augmentation occurred before any exudation could be supposed to have taken place. The inflammatory lymph differed from arrested-circulation lymph, such as accumulates in a lymphatic around which a tight ligature has been cast with previous section of the sciatic nerve. The former is yellowish, tenacious, coagulates immediately after being withdrawn from the body, contains a few red and a large number of white corpuscles, and on desiccation leaves a residue which is much greater than that of normal lymph, and many times more than that obtained after obstruction of the venous circulation. The latter is thin and watery, and coagulates slowly and imperfectly. The morphological elements are few, and consist chiefly of red with a few isolated white corpuscles. The characters of inflammatory lymph are preserved, even after its passage through a lymphatic gland. The density augments with the duration of the inflammation. In necrotic inflammations the lymphatic secretion disappears entirely. All these circumstances, Lassar is of opinion, are opposed to the views of Arnold, that a diapedesis and emigration of blood-corpuscles takes place through pre-formed stomata, since it is inexplicable that the presence of inflammation should lead to the passage of completely different saline and albuminous materials through the same pores as these which traverse these pores in arrested venous circulation. In inflammation changes must take place in the vascular walls which affect the process of diffusion. The facts given by Lassar have a practical application, since, if the fluid obtained by puncture has a high degree of concentration, it may be surmised that it is the result of an inflammatory process. It must be borne in mind, however,

that in high degrees of spanaemia even the inflammatory lymph may be very watery.—*The Lancet*.

DYSPEPSIA OF BANKERS' CLERKS.

Dr. Manouvriez has published, in the *Bulletin Médical du Nord*, some novel observations on this subject. It has been repeatedly noticed for years that bankers' clerks, after having handled for some days in succession large quantities of silver five-franc pieces, suffer from disorders of the respiratory and digestive organs. These have been ascribed to a dark-greenish metallic dust, which is raised by taking the coins from the bags where they are generally kept, weighing them, and putting them back; this dust impregnates the atmosphere of the room, blackens the skin, and penetrates into the respiratory and digestive tracts together with the air and saliva. As a rule, this process is only gone through at rare intervals during the year, and only lasts a few days, so that the clerks soon recover their health, or do not feel much affected by this dust. But in the years 1872 and 1874, when the money which had been paid by France to Prussia as a tribute was returned to France through mercantile transactions, the clerks spent several weeks in handling the coins which had not been taken out of their bags for some years, and the affection was now more marked than ever. The symptoms of this peculiar disease are—frequent sneezing, coryza, and angina; the expectorations are black. There is a disagreeable metallic taste in the mouth, which spoils the flavor of the food, loss of appetite, colic, nausea, and violent thirst. The bowels are mostly constipated; diarrhoea seldom prevails. The blue line along the gums, which is often noticed in patients who have been subject to treatment by silver, is absent. There is a great feeling of prostration and frequent headaches. Owing to the peculiar circumstances under which this affection has been first observed, there can be no doubt as to its being due partly to the copper verdigris, and partly to the oxydised state of the silver; both metals are used in the coinage of the five-franc pieces, in the proportion of nine-tenths of silver and one-tenth of copper. The constipation seems to be caused by the silver, because copper invariably causes diarrhoea. It is also said that silversmiths often suffer from colic, which is caused by their work. The patients were treated with purgatives and a milk-diet, and the disorder soon ceased.—*Brit. Med. Jour.*

ANÆSTHESIA BY NITROUS OXIDE.

M. Paul Bert has, he believes, devised a plan of administering nitrous oxide gas which shall enable complete anaesthesia to be kept up some time without fear of asphyxia. The method consists in administering a mixture of nitrous oxide and oxygen, under increased atmospheric pressure. At a meeting of the Société de Biologie on February 15th, M. Bert gave an account of the first application of his method, which was made on February 13th, on a young woman aged twenty, suffering from ingrowing toe-nail. The patient was placed in an apartment of an aëro-therapeutic establishment, in which the atmospheric pressure was increased; and she was made to inhale from a large bag 120 litres containing a mixture of 85 per cent. of nitrous oxide

and 15 per cent. of oxygen. Loss of sensation and muscular relaxation supervened in about a quarter of a minute; and the operator, M. Labbé, removed the nail and extirpated the matrix without any pain to the patient. The operation, including dressing, was completed in about four minutes. The eyes were closed, but insensible; the pupils were slightly contracted. At about the fourth minute, there was some contraction of the hands and feet, which ceased on the removal of the mouthpiece; and about half a minute later the patient awoke calmly, sat up, said that she had felt nothing, and asked for food. During the whole period of anæsthesia, the pulse was quiet and the skin preserved its color. M. Bert considers that this case confirms the conclusions at which he has already arrived by experiments on the dog as to the safety and efficacy of this mode of administering the gas. It can scarcely be said, however, that avulsion of a toe-nail is a fair test of its success in prolonged operations. It will be remembered by many of our readers that the value of nitrous oxide as an anæsthetic, not only in dental but in surgical operations, was tested rather extensively in London about eleven years ago. Mr. Clover, writing on the subject in the *British Medical Journal* of November 7th, 1868, speaks of having used it in iridectomy, in operations for strabismus, in wrenching an ankylosed knee, and says that "it is well suited for reducing dislocations, for removing the toe-nail, and opening fistulæ, boils, and abscesses of all kinds." M. Bert will, however, have conferred a great benefit on surgery if he succeed in showing that nitrous oxide can be safely used as an anæsthetic in prolonged operations.—*Brit. Med. Jour.*

EARLY ALBUMINURIA IN TYPHOID FEVER.

Professor DaCosta remarks that albuminuria in the *first week* of typhoid fever indicates either an antecedent renal disorder or serious blood alteration due to the febrile process, such as is more frequently met with at a later period—during the second or third week. He says that early albuminuria never is present unless the case is going to be a very grave one. Weakness of the first sound of the heart at an early period, and a flushed face, especially when accompanied by throbbing of the vessels in the neck, are signs of danger, and call for the use of stimulants and quinine, although the temperature may not be unusually high.

The alarming and sometimes fatal syncope which occurs in typhoid fever, usually from slight over-exertion at the beginning of convalescence, is attributed by M. Huchard to the coincidence of cerebral anæmia with cardiac debility or degeneration (myocarditis). The therapeutic indications mentioned are to sustain the feeble heart with digitalis, coffee, caffeine, and stimulants, and to counteract the anæmia of the brain by subcutaneous injections of morphine with a view to promoting congestion.—*Boston Med. and Surg. Jour.*

A CASE OF AMPUTATION OF BOTH LEGS FOR GANGRENE; RECOVERY.

(Under the care of M. DELENS, at the Hôpital Ménilmontant, Paris.)

The following case is interesting from more points than one: firstly, on account of the peculiar history of the patient immediately before the commencement of the accident; secondly, on account of the different causes which may have brought on the gangrene; and, thirdly, from the happy results and rapid recovery of the patient, whose wounds were dressed with lint and camphorated alcohol. This dressing has given the most brilliant results in many other cases where it has been employed in the same hospital for amputation and other wounds.

Auguste W—, a native of Calais, aged thirty-eight, a barber, entered St. Michel ward on Dec. 23d, 1878. His family history was excellent, and he himself had always enjoyed good health with the exception of some trifling ailments during childhood. He had never suffered from syphilis, and was of temperate habits. On the 10th of December he set out from Lille with the intention of coming to Paris on foot. On the evening of the first day of his journey he arrived at Douai, after having walked a distance of twenty-eight kilometers. At this time the roads were covered with snow. After having slept the night at Douai he started in the morning for Cambrai, where he arrived at night, having traveled fifty-two kilometers during the course of the day. The next day he walked sixty kilometres, arriving at St. Quentin in the evening. It was in this town that he slept and took refreshments for the last time for three days. After walking for two days and two nights without taking any nourishment and very little rest, he reached Seulis at the close of the day. Overcome by fatigue he threw himself down on the ground at the side of the road and fell asleep in the snow. Next day, when he awoke, he felt that his feet were benumbed, but did not suffer much pain. He was able to continue his journey for another night and day, and finally arrived at Beauvry, where a charitable person gave him some food, and paid the remainder of his journey on to Paris by train. He had remained three entire days without any food. During the whole time of the journey he wore elastic boots, which he said were rather tight for him. (This is worthy of notice, as it is probable that the constriction determined by the elastics was not altogether foreign to the production of the gangrene by hindering the circulation in the foot. He arrived in Paris on a Saturday evening, and when going to bed he found the greatest difficulty in taking off his boots, as his feet were considerably swollen. He noticed that they presented rather a purple tint, and were covered with blisters. On the next day the numb sensation was more pronounced, and had extended up the whole length of each leg and thigh. On the following day he was transferred to M. Delens' ward. The distance he traversed on foot may be estimated at about 250 kilometres, and this with hardly any rest and most insufficient nourishment, and with a temperature several degrees below zero.

Upon admission he was a slight man of average height, but very thin. His face wore an expression

of suffering and fatigue. The pulse was small but frequent. Temperature was normal. Appetite good. Both feet and the interior third of each leg had a bluish-black tint, and were cold to the touch. They were perfectly insensible. Upon the proper limit of the abnormal coloring a beginning of the inflammatory circle was to be seen. The limbs gave off very little odor.

On Jan. 8th, as his condition was getting rather worse, it was decided that immediate intervention should be resorted to. The operation was gladly accepted by the patient. Consequently M. Delens amputated both legs slightly under the superior third, with the external flap. A great quantity of reddish-brown liquid escaped upon section of the tissues. The two stumps were dressed with lint dipped in camphorated alcohol, and the patient put to bed. Evening temperature 37.6° C.

Jan. 9th.—Temperature in the morning 38.6°, in the evening 38.8°. The patient felt very comfortable. The dressing was not touched.

11th.—Evening temperature 39.4°. Dressing changed for the first time. Patient felt well and asked for food.

16th.—The temperature had never been higher than 39.4°, and that only once. The wound had been dressed twice during the last five days. Union had taken place to a great extent.

18th.—Morning temperature 36.9°. Drainage-tubes taken away. A small bed sore had formed on the sacrum. General health good.

24th.—All the silver sutures were removed, and cicatrization was progressing favorably. Bed sore healed.

From this date he continued to improve daily, and on Feb. 10th both wounds were completely healed. The patient will leave in a few days for the country.

During the whole case the patient was kept on a liberal and nutritious diet, accompanied with stimulants.—*The Lancet*.

THE TREATMENT OF DELIRIUM TREMENS.

Dr. George W. Balfour² describes the method adopted by him for the treatment of delirium tremens at the Royal Infirmary, Edinburgh, during the past nine years. He points out the tardy appreciation of the fact, so clearly shown by Dr. Ware, of Boston, fifty years ago, that delirium tremens runs its natural course in from sixty to seventy-two hours, and that the remedies employed are often more dangerous than the disease. Such are large and repeated doses of opium and the large quantities of tincture of digitalis recommended by Mr. Jones, of Jersey. Dr. Balfour has found bromide of potassium in half-drachm doses given every hour, for ten or twelve hours perhaps, effectual in many cases. Chloral hydrate, however, is the main-stay, in doses of forty grains every hour for three hours if necessary, and only in the rarest instances has the third dose been required. One hundred and twenty grains, in divided doses, is not considered by the author a dangerous amount, as elimination goes on at the rate of about seven grains an hour. Dr. Balfour regards the use of alcohol after the beginning of

an attack, or when an attack is threatening, as entirely bad, and has found it necessary in the course of the disease in the rarest cases only, when the exhaustion is great. Then it delays the cure.—*Boston Med. and Surg. Jour.*

A CASE OF SKIN-IRRITATION PRODUCED BY QUININE.

The following notes of a case of eruption following the administration of quinine is of present interest, attention having been recently directed to the subject by Dr. Farquharson's lecture reported in the *Journal* of February 15th and 22d.

In December last, I had occasion to prescribe quinine to an officer who had served in the Ashantee war. The drug was prescribed in doses of five grains, once daily, and was taken in a little milk, that being the vehicle that most effectually disguises its bitter taste, with which I am acquainted. For two days, the quinine was taken with benefit, and without any ill-effect being produced. On the third day, within an hour of the administration of the drug, the whole body was covered by an erythematous rash accompanied by distressing tingling and itching. The patient, alarmed, summoned me in haste. I advised a hot bath and subsequent induction of skin-action in bed between blankets. Under this treatment, the disagreeable symptoms entirely disappeared almost as rapidly as they had arisen.

The daily dose of quinine was resumed on the following day, and no eruptions resulted until the seventh or eighth day afterwards, when exactly the same train of symptoms occurred and again disappeared under similar treatment.

In this case, the rash was of the first variety mentioned by Dr. Farquharson, and resembled closely that of scarlet fever, but no desquamation followed it. The patient suffered from malarious fever while serving in Ashantee, and has long been accustomed to take quinine in much larger doses than those which I prescribed.—J. Anderson, in *British Med. Jour.*

OBITUARY.

GEORGE B. WOOD, M. D., LL. D.

Dr. George B. Wood, the eminent professor and medical author, died about a week since at his residence in Philadelphia, in the eighty-second year of his age. He was confined to his house for the past four years, and had not been able to leave his bed within the last two years.

Dr. Wood was born in Greenwich, Cumberland county, New Jersey, March 13th, 1797. He was educated at the University of Pennsylvania, where he graduated in 1815 with the degree of A. B., and in 1818 with the degree of M. D. He was Professor of Chemistry in the Philadelphia College of Pharmacy from 1822 to 1831, and Professor of Materia Medica in the same college from 1831 to 1835. On the 6th of November, 1835, he was elected to the Professorship of Materia Medica and Pharmacy in the University of Pennsylvania. In 1850 Dr. Chapman resigned the Professorship of Practice at the University, and Dr. Wood was transferred to it in May of the same year.

His election to the chair of materia medica in

1835 had been productive of new interest in that branch, in consequence of its being made a demonstrative one in each science pertaining to it. In his hands the chair of practice became as eminently demonstrative; he richly endowed it with the materials for teaching, and into every department of this varied subject introduced appropriate illustrations in the form of drawings of pathological lesions of the organs, casts and models of disease, apparatus, and an extensive range of pathological preparations. In addition to the creation of an admirable cabinet of drawings and specimens illustrative of the *materia medica*, Dr. Wood erected a spacious greenhouse, in connection with a garden for the preservation and collection of medicinal plants. In 1860 he resigned the Professorship of the Theory and Practice of Medicine and was appointed Emeritus Professor; he was succeeded in the active professorship by Dr. William Pepper. In 1863 he was chosen a Trustee of the University. Deceased was a physician in the Pennsylvania Hospital from 1835 to 1859.

Dr. Wood was the author of numerous and valuable books, chiefly relating to his profession, which rank among the classics of medical science. His first important work, the "Dispensatory of the United States," was written in conjunction with Franklin Bache, M. D., and the original edition was published in Philadelphia, in 1833. 8vo., 1073 pp. This work at once stamped him as a man whose research and knowledge of his profession were of the highest order; it was thoroughly exhaustive in its description of the many medical agents peculiar to American practice, indicating minutely their various properties and effects. It went through thirteen editions, the last being in 1870, about 150,000 copies having been sold. Previous to 1830 there had not been any United States Pharmacopœia or standard list of medicines and their preparation, whose authority was generally recognized, but after the publication of Dr. Wood's work it was almost immediately taken as the official standard.

In 1847 he published a "Treatise on the Practice of Medicine" (2 vols. 8vo.) It ran through six editions, the last being in 1867. He also published, in 1856, a "Treatise on Therapeutics and Pharmacology," or *Materia Medica*, which had three editions, the last being issued in 1868 (2 vols. 8vo., pp. 1848), and a volume containing twelve lectures, six addresses and two biographical memoirs, in 1859. The lectures and addresses were delivered chiefly before the medical classes of the University of Pennsylvania. He also wrote "The History of the Pennsylvania Hospital," "History of the University of Pennsylvania," "Biographical Memoir of Franklin Bache," etc. In the first and last of these pamphlets will be found an account of Wood and Bache's "Dispensatory and United States Pharmacopœia," of which he, in connection with Dr. Bache and others, was editor of the editions of 1831, 1840, 1850 and 1860. In 1872 these memoirs, with the addition of the "History of Christianity in India," "History of the British Empire in India," "History of the Girard College," and other papers, were collected into a volume, entitled "Memoirs, Essays and Addresses." In 1865 Dr. Wood endowed the Auxiliary Faculty of Medicine in the University of Pennsyl-

vania, consisting of five chairs, one of Zoology and Comparative Anatomy, one of Botany, one of Geology and Mineralogy, one of Hygiene, and one of Medical Jurisprudence; all of these subjects to be especially considered in their relation to medicine.

At the time of his death Dr. Wood was President of the College of Physicians of Philadelphia and President of the American Philosophical Society.

Although retired from active professional service for some sixteen years, the death of Dr. George B. Wood removes from the head of the medical profession of Philadelphia the dignified successor in the long line of worthy names that have given this city its eminence among medical schools. When his stately presence no longer was seen among his younger confreres at the University, still in the retirement of advancing years the energy and interest were given to the medical school that had been the field of his young labors and triumphs. The institution and support of the Auxiliary School of Medicine at the University is due to Dr. Wood, and he was a notable instance of professional zeal and devotion that lasted unabated through all the decline of life and the infirmities of advancing age.

NEWS ITEMS AND NOTES.

American Medical Association.—Philadelphia, 1400 Pine Street, S.W. corner of Broad. The Thirtieth Annual Session will be held in the city of Atlanta, Georgia, commencing on Tuesday, May 6, 1879, at 11 o'clock, A. M.

SECTIONS.—"The Chairmen of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections. * * * *"
By-Laws, Art. II., Sec. 4.

Practice of Medicine, *Materia Medica*, and Physiology: Dr. Thos. F. Rochester, Buffalo, N. Y., Chairman; Dr. W. C. Glasgow, St. Louis, Mo., Secretary.

Committees appointed to report to this Section: On Clinical and Meteorological Records, Dr. N. S. Davis, Illinois, Chairman.

Effect of Climate in Colorado on Pulmonary Phthisis: Dr. C. Denison, Col., Chairman.

Obstetrics and Diseases of Women and Children: Dr. E. S. Lewis, New Orleans, La., Chairman; ———, Secretary.

Surgery and Anatomy: Dr. Moses Gunn, Chicago, Ill., Chairman; Dr. J. R. Weist, Richmond, Ind., Secretary.

Medical Jurisprudence, Chemistry, and Psychology: ———, Chairman; Dr. L. M. Eastman, Baltimore, Md., Secretary.

State Medicine and Public Hygiene: Dr. John S. Billings, Washington, D. C., Chairman; Dr. J. T. Reeve, Appleton, Wis., Secretary.

Ophthalmology, Otology, and Laryngology: Dr. H. Knapp, New York, Chairman; Dr. X. C. Scott, Cleveland, Ohio, Secretary.

The following Committees are expected to report:

On Prize Essays: Dr. Robert Battey, Rome, Ga., Chairman.

On Necrology: Dr. J. M. Toner, Washington, D. C., Chairman.

On Catalogue of National Library: Dr. H. C. Wood, Philadelphia, Pa., Chairman.

On Recommendations in President Richardson's Address: Dr. T. G. Richardson, New Orleans, La., Chairman.

On Ozone: Dr. N. S. Davis, Chicago, Ill., Chairman.

On Sanitaria for Consumptives: Dr. H. I. Bowditch, Boston, Mass., Chairman.

On Dr. Seguin's paper on the Intervention of Physicians in Education: Dr. R. J. O'Sullivan, N. Y., Chairman.

Changes in Plan of Organization to be acted upon.—Offered by Dr. J. M. Keller, Ark. Plan of Organization, Art. IV., Sect. 1.

In future the Committee on Nominations shall present the name of no person for appointment or election to office or position save on the Committees on Necrology and Climatology, unless the party nominated be in attendance on the Association at the time.

Offered by H. O. Hitchcock, Mich. Plan of Organization, Art. IV., Sect. 1.

The several State, Army, and Navy delegations, including delegates and permanent members, shall, on the first day of the Annual Meeting of this Association, at a meeting publicly called for that purpose, nominate candidates for the several offices of President, Vice-Presidents, and Chairmen for the several Sections, and shall choose one of their number to act on the Nominating Committee of the Association, with power to cast as many votes in that nominating committee as there are members of the delegation of which he is a member. Candidates for the several offices above named to be reported to the Association shall be selected from the names reported to the Committee of the several State Delegations.

Offered by Dr. A. N. Bell, N. Y. By-Laws: II. Sections.

Consolidate Section 4, on Medical Jurisprudence and Psychology, and Section 5, on State Medicine and Public Hygiene, and call it Section 4.

Offered by Dr. J. J. Caldwell, Md. By-Laws: II. Sections.

Form an additional Section, to be known as the Section on Neurology and Electrology.

Offered by Dr. T. Clay Maddux, Md. By-Laws: II. Sections.

Form an additional Section on Diseases of the Genito-Urinary Organs, including Syphilis and Dermatology.

Offered by N. S. Davis, as Chairman of a Committee. "Code of Ethics."

Art. I., paragraph I., add "And hence it is considered derogatory to the interests of the public and the honor of the profession, for any physician or teacher to aid, in any way, the medical teaching or graduation of persons knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine."

"It shall be the duty of every member of the Association who proposes to present a paper or report to any one of the Sections, to forward either the

paper, or a *title* indicative of its contents and *length* to the Chairman of the Committee of Arrangements at least one month before the annual meeting at which the paper or report is to be read. It shall be the duty of the Chairman and Secretary of each Section to communicate the same information to the Chairman of the Committee of Arrangements concerning such papers and reports as may come into their possession or knowledge, for their respective Sections, the same length of time before the annual meeting. And the Committee of Arrangements shall determine the order of reading or presentation of all such papers, and announce the same in a form of a programme for the use of all members attending the annual meeting." WM. B. ATKINSON, M.D.,
Permanent Secretary.

A Russian System of Sewage.—The *Vratschebnaya Vedomosti* of January 28th February 9th, 1879, gives the following curious account of a method of sewage which is practiced in some towns and villages on the Balkhan. The inhabitants dig a canal, which is supplied with water from some stream, and direct its course towards their town. This canal is generally closed by a dam, or the water is used for irrigation purposes, but from time to time, when it is thought necessary, the dam is opened and the water overflows the streets: the inhabitants then throw into the rushing torrent all the filth and dirt which has accumulated in their courtyards and houses, and even in their cesspools. It is remarkable that, in those places where this method of sewage is practised, the people look very strong and well, and malaria, as well as epidemics, are unknown.

Hospitals in St. Petersburg.—St. Petersburg possesses thirty-five public hospitals. Of these, eleven are devoted to women, including three lying-in hospitals and one ophthalmic hospital; two are skin-disease hospitals; three hospitals for children; fourteen general hospitals; three hospitals for the insane, and one hospital devoted to men only. In addition, there are thirty-six private hospitals and dispensaries in the city.

A Novel Method of Ventilation.—The influence of mind over matter is well exemplified in the following:

A gentleman, a fanatic on the subject of ventilation, was compelled to sleep one night in a small room at a hotel, and with a bedfellow. After undressing and putting out the gas they lay quiet for some time. Presently the ventilation party grew restless, crawled out of bed, and, fumbling around for the window, tried to raise it. It would not budge an inch. "I'm nearly stifled," he said; "Do you object, my friend, to my breaking out one of these panes?" "No," came the reply. Wrapping a towel around his fist, he broke out one of the panes. For a time he felt better, but concluded that the air would be improved if he broke out another. He did so, and with many joyful sniffs and open-mouth inspirations turned over and went to sleep, fully satisfied. In the morning, the first thing that met his eyes was a *bookcase* that stood in front of the window, *with two panes broken out of its glass door.*

BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the
National Quarantine Act of 1878.

[No. 36. Week ended March 19th, 1879.]

OFFICE SURGEON-GENERAL, M. H. S.,

Washington, March 19th, 1879.

Boston.—Week ended March 15th. Deaths from all causes, 159, an annual ratio of 22.6 per 1000 of the population; 16 cases of scarlet fever, 5 deaths; 22 cases of diphtheria, 4 deaths. Bronchitis caused 13 deaths, pneumonia 18, phthisis 32.

Providence.—Week ended March 15th. Total deaths, 39. An. ratio, 20. Enteric fever caused 1 death, scarlet fever 1, diphtheria 3.

New York.—Week ended March 15th. Total deaths, 604. An. ratio, 28.8. Scarlet fever caused 54 deaths, diphtheria 12, enteric fever 4, pneumonia 81, bronchitis 28, whooping cough 16, phthisis 104.

Brooklyn.—Week ended March 15th. Total deaths, 239. An. ratio, 22. 82 cases of scarlet fever, 17 deaths; 25 cases of diphtheria, 14 deaths. Croup caused 6 deaths, bronchitis 11, pneumonia 34.

Rochester.—Week ended March 15th. Total deaths, 53. An. ratio, 30. Small-pox caused 1 death, scarlet fever 1. No case of small-pox in the city at present.

Pittsburgh.—Week ended March 15th. Total deaths, 54. An. ratio, 12.5. Enteric fever caused 1 death, scarlet fever 1, diphtheria 5.

Baltimore.—Week ended March 15th. Total deaths, 135. An. ratio, 19. Enteric fever caused 3 deaths, scarlet fever 7, diphtheria 4, bronchitis 11, pneumonia 13.

District of Columbia.—Week ended March 15th. Total deaths, 91. An. ratio, 29.5. Enteric fever caused 1 death, scarlet fever 1, acute lung diseases 25.

Cleveland.—Week ended March 15th. Total deaths, 69. An. ratio, 22. Enteric fever caused 1 death, scarlet fever 2, diphtheria 2.

Chicago.—Week ended March 15th. Total deaths, 156. An. ratio, 17.8. Enteric fever caused 2 deaths, scarlet fever 5, diphtheria 13.

Cincinnati.—Week ended March 15th. Total deaths, 112. An. ratio, 21. Typhus fever caused 1 death, scarlet fever 18, diphtheria 3, whooping cough 4.

Hudson Co., N. J.—Week ended March 15th. Total deaths, 72. An. ratio, 19. Scarlet fever caused 5 deaths, diphtheria 1, enteric fever 2, acute lung diseases 16.

Buffalo.—Week ended March 15th. Total deaths, 36. An. ratio, 13. Scarlet fever caused 4 deaths, diphtheria 5, croup 3.

Philadelphia.—Week ended March 15th. Total deaths, 284. An. ratio, 17. Enteric fever caused 6 deaths, scarlet fever 12, diphtheria 5, croup 5, acute lung diseases 38.

Richmond.—Week ended March 15th. Total deaths, 33. An. ratio, 21.7. Scarlet fever caused 3 deaths.

Savannah.—Week ended March 14th. Total

deaths, 13 (5 whites, 8 colored). Death-rate for whole population, 27.

St. Louis.—Week ended March 15th. Total deaths, 102. An. ratio, 17.1. 6 deaths from enteric fever, 12 from scarlet fever, 5 from diphtheria, 5 from croup, 38 from acute lung diseases.

San Francisco.—Week ended March 7th. Total deaths, 74. An. ratio, 12.6. Diphtheria caused 2 deaths, acute lung diseases 6, phthisis 20.

New Orleans.—Week ended March 9th. Total deaths, 87. An. ratio, 21. "Congestive malignant fevers" caused 2 deaths, acute lung diseases 17.

Montreal.—Week ended March 8th. Total deaths, 63. An. ratio, 27.2. Small-pox caused 9 deaths, diphtheria 3, enteric fever 1.

Gt. Britain.—Week ended March 1st. The average mortality in the 23 large cities was 27 per 1000 of the population. Rate at London, 25.5; Edinburgh, 23; Glasgow, 29; Dublin, 43; Liverpool, 34; Plymouth, 18; Brighton, 18; Bristol, 19. Small-pox caused 22 deaths in London, 1 in Manchester, and 19 in Dublin.

Paris.—Week ended Feb. 2 th. Total deaths 1026. Annual ratio 26.8. Small-pox caused 14 deaths, enteric fever, 25 deaths.

German Empire.—Week ended Feb. 26th. In 150 towns the average death rate was 27.7. Rate at Munich 33.4, Dresden 30.5, Berlin 23, Hamburg 29, Cologne 28, Frankfort 18.4, Strasburg 36.5, Leipzig 26.

Vienna.—Week ended Feb. 22nd. Total deaths 432. Annual ratio 30.5. Small-pox caused 19 deaths, diphtheria 14.

The U. S. Counsel General at Constantinople reports that the health of that city, and its precincts is in a favorable state, and that the reported occurrence of cases of plague in European Turkey have arisen from the prevalence of malignant typhus in the provinces devastated by the late war. The retreat of the Turkish Armies was attended by great privation among the refugees who accompanied them and among the inhabitants of the provinces through which they passed, much distress and sickness have ever since prevailed there, but no authenticated cases of plague have occurred. No new cases of the plague have occurred in the Province of Astrakan, but the military cordons are still maintained, the infected villages are being thoroughly cleansed, and means taken to completely exterminate the disease. Much anxiety is felt however, lest on the breaking up of the ice in the Volga and the liberation of the innumerable small craft that have been frozen up at Astrakan and other points that the disease may be spread by their movements. The past winter was the mildest in the memory of the inhabitants and it is feared that the virus of the disease may survive the influence of the few short spells of cold weather that have occurred.

The Bark "Sleipner" arrived at Port Eads below New Orleans on March 14th from Rio de Janeiro. During the 61 days passage all of the crew suffered from yellow fever; 3 died and one is still sick. The vessel was immediately towed to the Quarantine Station.

J. B. HAMILTON.

Surgeon, U. S. Marine Hospital Service.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and object of the publication, should at once remit the amount for a year's subscription. We cannot undertake to supply back numbers, either in or out of the States, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

THE SURGERY OF THE LARYNX.

Being an abstract of a Lecture delivered before the Medical Class of Jefferson Medical College, Philadelphia.

SAMUEL D. GROSS, M.D., LL.D., D. C. L., OXON.

(Reported for THE HOSPITAL GAZETTE.)

Speaking of tracheotomy, the operation is almost always performed too late in cases of diphtheria. The system is allowed to become thoroughly poisoned by the morbid element before tracheotomy is proposed. If it were done early in this disease the probability is that life would much more frequently be saved. As it is now, life is generally sacrificed. At the Berlin hospital 754 tracheotomies have been performed for the relief of diphtheria in fifteen years, 1861-1875. Of these cases, thirty-three and a third per cent. recovered from the effects of the disease and of the operation. I am quite sure that the operation, if rightly performed, is attended by but slight mortality rates. The statistics of the hospital which I have just mentioned, show that the greatest number of deaths occurred before the second year of life, and that the most recoveries took place after the fourth year. When the affection was endemic it was also shown that the mortality was greater.

In regard to the medication of the larynx we are indebted to Dr. H. Green for throwing the first clear light upon the subject, although Trousseau is very full regarding the general treatment of the diseases of the larynx. I must say, however, that I do not at all agree with Dr. Green, that it is possible to insert a probang into the trachea and bronchi as he claims to have done successfully upon several occasions. I have always found it very difficult even to get an instrument into the interior of the larynx. The larynx may, however, be medicated by taking a piece of sponge and introducing it medicated and properly secured in a pair of forceps. In one of the cases in which Dr. Green tried to pass a probang, holding a sponge, into the trachea, the sponge became accidentally detached and the patient suffocated before it could be removed. There is no doubt, however, but that a sponge properly secured to a probang is an excellent means of medicating the larynx and the surface of the epiglottis. There are a great number of contrivances in the market for reaching the larynx and epiglottis and making applications to them. Here is a piece of whalebone whose end is bent to an angle of 45°, and to it a scrap of sponge is fastened. The patient should be seated before you and looking towards you, with his head resting on the breast of your assistant. He should then be directed to take a deep inspiration, and as the inspired air is being gradually expired, raising the epiglottis from the larynx, of course, the sponge saturated with a solution of the nitrate of

silver with a strength of from thirty to forty grains to the ounce, and properly secured to the whalebone, should be insinuated as rapidly and as gently as possible into the interior of the vocal tube. The epiglottis being erected in the act of expiration all you have to do is to get your sponge between the epiglottis and the larynx and push it. The operation is followed immediately by a sense of suffocation. To relieve this all that is necessary is to pour a small amount of chloroform upon your handkerchief and allow the patient to inhale it, when the distressing symptom will at once subside.

It is not safe, in my estimation, to pass nitrate of silver beyond the epiglottis.

Another mode of applying medication to the surface of the larynx consists in injecting a solution of nitrate of silver of the strength of from thirty to forty grains to the ounce, by means of a syringe. The end of this syringe is bent at the proper angle and is perforated with numerous small apertures. All that is required is to pass this end of the syringe behind the epiglottis and so project the fluid against it.

Oedema of the glottis was originally, I believe, described by Sir Charles Bell. It is the result of a local injury—no matter how this injury is produced, whether by the inhalation of steam, or other irritant gases. It consists in an inflammation followed by an effusion of serum and plasma into the connective tissue at the rima glottidis. When this has taken place it is very easy to imagine how difficult it is for the patient to draw the air into his lungs and consequently how distressing a condition he is in. This swollen connective tissue, forming a sort of tumor, is liable, of course, to be drawn into the wind-pipe with each inspiration, and the patient has to gasp for breath. (Oedema of the larynx and oedema of the pharynx are alike very dangerous conditions.)

Whenever a patient complains of difficulty of respiration always examine his throat. When you have diagnosed the condition of oedema, what is the proper remedy? Will nitrate of silver be of service now? Not of the slightest. The only rational thing to do is to take a probe-pointed bistoury with a cutting edge of about three quarters of an inch, insert it carefully and gently into the throat, and then seizing the proper moment cut the swollen surface, or surfaces, freely, so as to enable the serum to escape. There is no danger of hemorrhage that will amount to anything.

If this free incision does not answer, and the breathing is stiff, difficult, and suffocation consequently not far off, the only proper and sensible thing to do is tracheotomize as soon as possible.

I have spoken to you, upon a previous occasion, of ulceration of the larynx in constitutional syphilis. This ulceration may take place at several places, but is most likely to occur upon the vocal cords and in the sinuses of Morgagni. (There may, indeed, be ulceration on any part of the mucous membrane of the larynx.) In this syphilitic ulceration the epiglottis is occasionally found almost entirely eaten away.

Here are a number of specimens illustrating this condition, and you see how completely it is eroded, looks exactly as if it had been actually gnawed away by the teeth. Together with this condition you see

that there is great thickening of the vocal cords and obliteration of the sinuses of Morgagni.

When the epiglottis has been lost there is great difficulty experienced in the act of swallowing. Fluids, indeed, very often find their way into the trachea and air passages.

In these cases of syphilitic ulceration treatment should be early interposed in the shape of the nitrate of silver in solutions of proper strength. Tracheotomy, if necessary, should be performed early in the course of the disease. Without tracheotomy, indeed, we should hardly be able to properly medicate the interior of the larynx in many conditions.

There are, as you know, various morbid growths which may develop in the larynx, and in this connection I want to bear my testimony to the inestimable value of the laryngoscope in the examination and diagnosis of each and all of these various conditions. The discoverer of this apparently simple contrivance has conferred a very great boon upon mankind.

Among the various kinds of laryngeal tumors may be mentioned the myxoma, which is composed of the same gelatinous material as polypus of the nose, and which is the least harmful of such tumors. In sixty-five per cent of cases of tumors of the larynx the growth will turn out to be a fibroma. Next, in point of frequency to the fibroma, is the papilloma, then the sarcoma, then the adenoma, lipoma, epithelioma, and, least common of all, the gummy tumor.

The only way in which to detect a tumor of the larynx is by means of the laryngoscope. For the removal of such a tumor it will be necessary to perform laryngotomy, or thyrotomy, or tracheotomy. In some rare cases it is possible to remove it by an oral operation, using forceps of peculiar construction. I very seldom try to remove a tumor through the mouth unless it be very high up. In all such cases, of course, the throat must first be gradually rendered tolerant of the contact of the instruments. With this end in view a liniment consisting of eight grains of morphia and a fluid drachm of chloroform in an ounce of water, should be daily applied to the parts on a sponge.

Instead of performing thyrotomy, tracheotomy, or laryngotomy, another procedure is to divide the entire thyroid gland high up. In this way you can, as a general thing, gain ready access to the tumor. If you resort to this method you should make a free opening into the larynx and insert a laryngeal tube.

After removing the foreign growth be careful to cauterize the mucous membrane around the stump, with chromic or nitric acid, so that the tumor will not return. After such an operation the treatment should be principally antiphlogistic internally, and the patient should be kept in a room whose atmosphere is moist and has a temperature of 85° Fah. otherwise he may contract pneumonia.

You very often hear of instances in which foreign bodies, such as buttons, slate pencils, etc., have been drawn into the throat and falling into the larynx and trachea have given rise to paralysis of the parts and great dyspnoea. In these cases tracheotomy or some like operation is as a general thing imperatively demanded. Should the windpipe be cut it should be sewed up afterwards with an interrupted, or twisted suture and the parts tacked carefully together, the patient being cautioned to incline his

chin downwards towards his stomach so as to assist in the perfect coaptation and accurate healing of the lips of the wound.

REMARKS ON A CASE OF "GREEN STICK" FRACTURE OF THE RIGHT RADIUS.

BY

JARVIS S. WIGHT, M.D.

Professor of Surgery at the Long Island College Hospital.

(Reported for THE HOSPITAL GAZETTE.)

GENTLEMEN: I will interrupt my didactic lecture this morning to give you an account of a case I saw yesterday afternoon. The facts have relations of interest and importance. They are as follows, namely:

Ida Joyce, six years of age, while at Sunday-school on March 23d, fell from the top to the bottom of a flight of stairs, contusing her forehead over the right frontal eminence, and injuring the right forearm. She was carried to the Long Island College Hospital by her father, accompanied by her mother, and received by the house physician, Dr. Woodruff, who came for me to go and see the patient. I went without delay, and confirmed the doctor's diagnosis of a "hickory stick" fracture of the right radius. I then made the following measurements and observations, which were recorded by Dr. Woodruff:

1. The ulna from the tip of the olecranon to the wrist-joint had a length of five and three-fourths inches.

2. The radius from the wrist-joint to the radio-humeral joint had a length of five and one-fourth inches.

3. The proximal fragment of the radius had a length of about four inches.

4. The distal fragment of the radius had a length of about one and one-fourth inches.

5. The two fragments of the radius meet at an angle of about 140 degrees, as was determined by a protractor; this would make the deviation of the distal fragment from the long axis of the radius about 40 degrees.

6. The injured forearm could be rotated through an arc of 10 degrees, when rotation was resisted and caused pain.

7. The proximal fragment and the ulna were nearly in a state of mid-rotation; the distal fragment was pronated and flexed.

8. The forearm could be readily flexed and extended on the arm, causing some pain.

9. There was a well-defined contusion over the doismus of the base of the injured radius, as well as over the dorsum of the contiguous carpus, showing that on this surface there had been the application of external violence.

10. Now I think that there could be no question about this fracture of the radius being caused by the impact of force on the back of the carpus and the radial base. The circumstantial evidence is too strong to be controverted. It seems to me that the verdict in favor of this means of causation is about as strong as if the breaking force had been seen to impinge upon the contused parts.

11. The normal radius of the adult, according to

these specimens before us now, has a length of about ten inches. The radius of this little patient is about five inches; while, as I have shown at another time, the base of the radius in the adult will average nearly one and one-fourth inches. This, in a comparative way, would make the base of the radius of this young patient five-eighths of an inch in length; hence, this fracture was above the base of the radius. In fact, the shaft of the radius was broken.

12. The bone was not completely broken off: a line, or seam of separation, could not be felt on the dorsum of the radius. The distal fragment was firmly held in its position above described, requiring considerable force to move it. There was an undoubted *bending* of the bone, whose fibres on the side of convexity, however, must have been more or less *broken*.

13. There was no crepitus found at any time during the examination; this could not occur, for there was immobility of the fragments.

The broken and bent radius was made to assume its original form, in the following manner, namely: The right thumb was placed on the dorsum of the upper end of the distal fragment, whose palmar side was grasped by the fingers of the same hand. The left thumb was placed on the dorsum of the lower end of the proximal fragment, whose palmar side was grasped by the fingers of the same hand. Pressure backward by the fingers and forward by the thumbs restored the radius to its original form. The amount of pressure required was very considerable. During the reduction of the fragments there was a very distinct "feel" of the breaking of bone, somewhat like the "feel" appreciated during the operation of *infraction* for a bone united in a position of angular displacement; and there was also a "feel" resembling bony crepitus. I have seen and treated three other cases of this kind—but in none was there required so much force to overcome the deformity as in this instance.

In relation to the present case, the following remarks may be made, namely:

1. A "green-stick" fracture of the radius may take place without injury to the ulna.
2. The deformity may be marked and the immobility may be very considerable.
3. In this case no furrow of separation between the fragments appeared to exist; yet it must be admitted that the fibres of bone on the side of convexity were more or less separated.
4. Also, the fibres of bone on the side of concavity must have been more or less completely broken through by the force employed in the reduction of the fragments.
5. The fragments fairly supported themselves in place—by the aid of the ulna—after the reduction and before the splints were applied.
6. A dorsal splint and a palmar splint applied lightly to the fore-arm and the hand by Dr. Woodruff completely retained the reduced fragments in place.
7. In fine, let me particularly draw your attention to the fact that the radius may be broken by the impact of a resisting force directly or indirectly on the dorsum of its base. A case of the fracture of the base of the radius caused in a similar manner you

have already seen, and is now under treatment in the wards of the hospital.

CLINICAL REMARKS ON A CASE OF VERTIGO FOLLOWING A FALL, AND ON EPISTAXIS.

Delivered at the College of Physicians and Surgeons, New York.

BY

ALONZO CLARK M.D., LL.D.,

Professor of the Theory and Practice of Medicine, and of Clinical Medicine.

(Reported for THE HOSPITAL GAZETTE.)

VERTIGO FOLLOWING A FALL.—This boy had a bad fall on the ice several weeks ago, and has been troubled with dizziness ever since. Accompanying this vertigo, or rather these attacks of vertigo, there is no faintness and no convulsion. The lad keeps his mind clear all the time the dizziness is upon him. In falling he always falls to the left. Yesterday the mother says that he fell five times. When he falls he feels as if everything were going round about him. There was none of this tendency to vertigo before his fall on the ice. This tendency to fall has been constantly growing upon him; it was not very decided at first.

There is no pain in the head, but the appetite has not been good lately. The boy never feels sick at his stomach; he vomited considerably, however, during the course of the week following the fall. There does not seem to be any deafness. The feeling of dizziness shoots right across the forehead.

I can hardly associate these spells of dizziness with the blow received on the side of the head. The lad's mind is good, and his hearing is not affected, nor is there any other evidence of cerebral injury. There may have been an effusion of blood upon the brain as a result of the fall, but in that case it would have made the boy slow in his movements and averse to study, which is not the case, as the mother assured me.

The boy is perfectly well between the spells; there is nothing visible on the outside but a slight congestion of the outer portion of the eye and swelling of the eyelid, but nothing else; there is no depression of bone. As an additional symptom the mother adds that his face is flushed when he falls.

I must confess that I am not able to trace any connection between all these symptoms and the fall. However, I shall tell the mother to try dry cups to the back of the neck as an experiment, and as nitromuriatic acid controls the fits of giddiness consequent upon bad digestion, I shall order two drops of nitro-muriatic acid in two table-spoonsful of water immediately after eating.

EPISTAXIS.—This woman comes here complaining of frequent epistaxis from the right side. When the nose bleeds the nasal passage is very much obstructed. The last bleeding she thinks amounted to a quart.

It is a very interesting psychical fact to notice how a slight quantity of lost blood seems to exaggerate itself under the eye of the non-professional public. Some days ago I was called to see the child of a fellow practitioner which had been seized

with hæmoptysis. When I got into the nursery I asked the nurse how much blood had been lost. "Oh! about a quart." A few moments later the father appeared, and I repeated the same question. "About half a cupful," he said.

But to return to our subject. This woman's menses are very small, and the blood which ought to make its way out of the system through that channel has been obliged to seek a new avenue of escape.

As regards treatment the easiest and best is to teach the patient to find the little artery which supplies the mucous membrane of the nose and press upon it, when the bleeding will stop at once. Another very good mode of treatment is to use the liquor ferri persulphatis (diluted with from two to four parts of water) by spray. This remedy will be found to be very effectual.

Plugging is cruel and not necessary in most cases. As there is probably some anæmia present iron must be taken as a medicine. This, with wholesome diet and plenty of fresh air, ought to make her better.

ORIGINAL ARTICLES.

THE TAMPONADE OF THE VAGINA (NATHAN BOZEMAN'S METHOD) SUCCESSFULLY APPLIED AS A CURATIVE AGENT FOR UTERINE DISPLACEMENTS, WITH ADHESIONS AND PROLAPSED OVARY.

by

RUDOLF TAUSZKY, M. D.,

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Every gynecologist, nay, many physicians in general practice, have probably met with patients who for months, sometimes for years, have been suffering from backache (referred to the sacral and coccygeal regions). The pain often extends down the thighs (following the course of the ischiatic nerve), and radiating in different directions in and about the pelvis. A similarly distressing sensation on the part of the patient is complained of frequently through the iliac and hypogastric regions. The bowels are, in most cases, constipated; micturition is frequent, often burning and painful; the digestive organs suffer likewise; headaches, the flow of whites (leucorrhœa), disordered menstruation, contribute towards making such patients' lives a burden to them. The temperature of the body is usually found to be normal, with occasional exacerbations, however, rising sometimes to 102 degrees Fahrenheit. An examination per vaginam at once makes the *diagnosis* of the case an easy one.

We find in nine cases out of ten that the uterus is retroverted or retroflexed, that it is immovably fixed in its abnormal position to the adjacent tissues, and that, if reposition of the displaced organ is attempted, this utterly fails. The ovary, or rarely both ovaries, are found to occupy part of Douglass's *cul de sac*. They are very painful to the touch and in coitu. Besides the uterine and ovarian displacements with fixation, we usually find some evidences of a chronic para and perimetritis, one or both, with subinvolution of the uterus; then relaxation, elongation of one broad ligament, and consequent dragging

and shortening of that of the other, is easily diagnosed. In retroversion and flexion the vesico-uterine ligament is also put on the stretch, and the diverticulum often forming in consequence thereof in the bladder, gives rise to a retention of some parts of urine which cannot be fully evacuated, and becoming decomposed (alkaline) causes vesical catarrh; often cystitis and urethritis. The pressure upon the rectum by the displaced womb gives rise to rectal tenesmus and often constipation, with prolapsus mucosæ recti and hemorrhoids, and explains the great sufferings of the patient from pressure and dragging upon the hypogastric plexuses of nerves, from which the uterine and vesical plexuses originate (as is well known).

The intimate relation existing between the sacral and ischiatic plexuses of the great sympathetic with the solar plexus and those of the pneumo-gastric nerves easily accounts for the digestive, circulatory and nervous troubles accompanying the displacements herein referred to.

It is not unusual to find also the cervix uteri lacerated, the endometrium is congested and painful, as evidenced by carefully introducing the uterine sound or probe, if such examination be warranted. Usually no sound should be used for fear of aggravating the congestive and inflammatory symptoms in and around the uterus and its adnexa. The utricular glands, of course, often participate in the inflammatory process of the lining mucous membrane of the uterine and cervical cavities and an abundant mucopurulent, sometimes also a sanguinolent discharge takes place from the cervico-uterine canal.

In cases where we find retroversion of the uterus instead of retroflexion there is usually superadded the condition so ably described by Professor T. G. Thomas under the name of "Areolar Hyperplasia," which condition however, contrary to the opinion expressed by so high an authority as Thomas, I hold to be a chronic inflammation of the womb. The term "*chronic metritis with induration*," applied to designate this morbid condition, I am convinced, is fully correct. The hardening of the uterine tissues is not the consequence of a new formation (neoplasma) or proliferation of connective tissue alone, like in the case of a fibroma; myoma, etc.,—which takes place in erroneously so called, areolar hyperplasia, but the process is the following: At first the ciliated epithelia of the lining membrane of the uterus swell and a serous fluid exudes from the blood-vessels running in the connective tissue. These are found to be engorged with blood (congestion, hyperæmia, stasis taking place in them) and then transudation follows. By and by, out of the connective tissue, running between the muscle-bundles (fasciculi) new elements (inflammatory, medullary or embryonal) originate, after the melting out of the lifeless part of the protoplasm. Out of these elements (called also inflammatory cells) with the additional new formation of red blood corpuscles and bloodvessels, a proliferation of the connective tissue takes place and a scirrhus condition of the womb is the result, giving to it the gritty, cartilaginous feeling when being cut into. A careful study of this pathological condition called by Thomas "areolar hyperplasia", teaches me that this is entirely analogous to the condition following catarrhal pneumonia; catarrhal nephritis; or chronic

hepatitis. Areolar hyperplasia so-called, therefore, is nothing else than the result of a chronic inflammation of the womb (with induration as an inflammatory product). In the large number of cases affected in the manner described coming under his care the writer had tried rest in the recumbent posture, the local abstraction of blood by leeches applied externally, or the vaginal portion cervicis uteri, scarification of the endometrium, narcotic application per vaginam and rectum and abdomen; of course great attention being paid to the regularity of the alvine evacuations; and the digestive and urinary organs by appropriate medication whenever indicated; counter-irritants ad abdomen and fornicem were applied; Thomas' dull wire curette, for the purpose of removing the multiple adenomatous condition of the endometrium, when found present, was used; vegetations, if existing, were cauterised or removed also by scraping; enlarged, cystic follicles were opened and thoroughly touched with nitric acid or nitrate of silver in substance. Copious hot water injections, with a view of softening the hardened tissue and promoting absorption of liquified exudations and afterwards causing the dilated bloodvessels to contract, were advised to be freely made use of. (Hot water injections at first cause dilatation of the bloodvessels but after a while, reaction takes place and then contraction follows.

Emmet's operation for closure of the lacerated cervix, trachelorrhaphy would, no doubt, have relieved part of the trouble from which the patients were suffering, viz.: It would have ameliorated the cystic degeneration of the cervix—the leucorrhœa, endometritis, the so-called areolar hyperplasia to some extent, but still there were the adhesions and the displacement which no surgical operation, no internal or external support of the womb, and no medication known to me, would have relieved to such a satisfactory degree, as the plan for accomplishing this purpose first used. I am told, twenty years ago, by Dr. Nathan Bozeman, of this city, and which I have myself found to be of the highest value in the treatment of complicated or uncomplicated cases of uterine adhesions and displacements of the ovary, in private practice as well as also in my service in the Mt. Sinai Hospital Out-Door Department. This method consists in the gradual stretching, elongation, of the vagina by means of carbolized cotton (the use of carbolized cotton, of course, instead of ordinary cotton, is of recent date.)

The simplicity, the safety, and the usefulness of the method for which the profession is indebted to Dr. Bozeman, who claims, and with justice, the priority of this mode of treating uterine displacements and adhesions, whether complicated with ovarian prolapse or not, will be apparent to the most skeptical after trial. Some time ago a Dr. Tagliaferro—a southern physician, published a pamphlet on this same plan of treatment without giving Dr. Bozeman the credit due him for this simple and efficient means adopted by him, as stated, twenty years ago. The method itself is a very simple one.

Suppose the patient be suffering from retroflexion or retroversion of the uterus with or without ovarian complication—then she is placed in the knee elbow position; Bozeman's speculum is introduced and his larger vaginal blade is made use of, this latter form-

ing the third blade which elevates the perinæum and posterior vaginal wall. Tampons of cotton saturated in a one or two per cent. solution of carbolic acid and pressed out dry, are then introduced into the posterior cul-de-sac of the vagina as high up as possible, depressing it gently with the posterior vaginal blade. By a number of cotton tampons similarly introduced in rapid succession, until the vaginal column be complete to the perinæum. The instruments are removed and the patient is allowed to follow her daily avocation. Where, on account of a lacerated perinæum, the column does not stay in place, a perineal pad, or a T bandage is necessary to keep it in place.

The *rationale* of Bozeman's method of tamponing the vagina for the relief of uterine adhesions seems to me to be the following: The vagina is elongated and put somewhat upon a gentle stretch; the rugae become smoothed out; the fornix vaginæ is elevated in the pelvis; the adherent uterus, ovary, etc., are supported from below upwards by the soft cushion thus applied; the blood-vessels are relieved from distension and their hyperæmic state, the plexuses and nerve filaments are also thereby relieved from direct pressure from the enlarged, fixed and displaced womb, and the surrounding, often accompanying exudation, which, if within the ligaments may be gently and gradually moved. The cautiously exerted pressure through the column of the cotton in the vagina acts as a stimulus to the lymphatics and promotes absorption of first liquefied peri-uterine exudations. The bladder also being supported by the tampon, is more readily emptied than before, and often the great distress of painful and frequent micturition is greatly lessened. It is hardly necessary to state that each tampon has a string attached to it, for the purpose of its easier removal. The tampon remains for forty-eight hours usually, when the vaginal douche is used and the tampon is reapplied. In a few weeks the good results are manifest by the more comfortable feelings of the patient and the mobility of the uterus found to exist by the examining surgeon.

Since uterine adhesions and chronic pelvic exudations have heretofore constituted a large majority of incurable cases in gynæcological practice, the attention of the profession is hereby called to a simple method of relief, which it has proved to be in my hands, at least, and those of Dr. Nathan Bozeman, to whose kindness I am indebted for having first called my attention to it.

Of course, it is not claimed that a lacerated perinæum or an extensive laceration of the cervix, or any defects in the genito-urinary organs, which are amenable to surgical operative procedures, and can be relieved thereby only, should not be practised. On the contrary, if such conditions exist after the uterus has been made movable by the application of the tamponade, the operative procedures and additional internal and external medication are to be had recourse to for the complete cure of complications—not healed by the tamponade alone—according to recognized scientific principles.

HOSPITAL RECORDS.

MOUNT SINAI HOSPITAL, NEW YORK.

(Reported by EDWARD FRIDENBERG, M.D., House Physician.)

UTERINE POLYPUS. REFLEX HEMIPLEGIA.

Johanna H., æt. 33. Single. Germany. Servant.

Patient was in perfect health, except for a falling of the womb, until yesterday, when she was riding in a street-car, and suddenly found that she could not articulate distinctly, her tongue becoming thick. A few minutes later she tried to rise and walk, but staggered about as if intoxicated, the left leg being powerless. This morning on rising found her left arm paralyzed, but had recovered power of articulation.

No premonitory symptoms, such as dizziness, headache, loss of consciousness, had been noticed.

On admission (Oct. 28, 1878), Pulse 84, R. 22, T. 99.6°; heart and lungs normal; left leg and arm, motion and sensation decidedly impaired; reaction to Faradic current perfect; no difference in temperature on the two sides.

Vaginal examination reveals a polypoid tumor of smooth, soft, non-elastic feel, about the size and shape of a pear, hanging from anterior lip of cervix in vagina, pushing bladder forwards and downwards, and compressing urethra against pubic symphysis. The cervix can be felt, but the sound does not enter the os. Above and to right side of cervix a movable body resembling uterus in shape can be made out by conjoined manipulation.

Diagnosis.—Polypus uteri; hemiplegia reflexa; ord. Faradic current to paralyzed limbs.

October 29th.—Patient states that she has the same feeling in left side of face as in left arm and leg; tongue protruded towards left side; mouth deviates towards right when patient attempts to whistle; patient cannot close left eye separately.

October 30th.—Much less strength in left arm and leg than on admission.

October 31st.—Articulation indistinct; no appreciable difference between angles of mouth when patient laughs; when she drinks part of fluid runs out of left angle of mouth.

November 11th.—Has lost all power over left arm and leg; facial paralysis persists.

On November 19th the tumor hanging from cervix was removed by scissors without anæsthesia; no hemorrhage; tumor proved to be a fibroid.

An immediate improvement in patient's condition ensued, and she was discharged entirely cured of her paralysis on December 11th.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JNO. A. WYETH, M.D.

PASTEUR—THE GERM THEORY—ITS APPLICATION TO MEDICINE AND SURGERY.

P., in his celebrated essay on the above subject, arrives at these conclusions:

1. That there are several varieties of septicæmia, or putrid infection.

2. There exist several forms of septic vibrios, differing from each other in certain important physiological peculiarities—of these the *vibrio septicus* is one of the most dangerous.

3. This one does not require the presence of air to support its existence. On the contrary, when in contact with the air it becomes less obnoxious, and is finally destroyed.

4. If it develops in a liquid in contact with the atmosphere, the liquid must be of sufficient depth, so that the organisms developing in the upper strata will protect it from the air which occupies the deeper portion.

5. This *vibrio septicus* exists and propagates itself *in vacuo* as well as in pure carbonic acid gas, but under such circumstances it loses its peculiar thread like form, and becomes shriveled.

6. These germs may be conveyed through the air or in water.

7. They live and increase even in the presence of oxygen, under a pressure of several atmospheres.

8. Among the organisms which occur in disease, and the "*disease-ferments*," are those which live exclusively in contact with the air; those which can exist regardless of the presence or absence of air; and those which only live *in vacuo*.

9. Classification of these organisms from a morphological point of view (as by Cohn, Billroth, and others) is inadmissible, since one and the same vibrio may assume all possible forms.

10. I shall prove that the introduction into the living body of a microscopic organism (not heretofore described) will produce profuse suppuration.

This variety is found in water in general, and is introduced into the system in the water used in washing wounded surfaces.

11. That death does not result in every wound not treated by the antiseptic method, is due to the power of physical resistance on the part of the system.—*Centralblatt für Chirurgie*, Jan. 18, 1879, p. 34.

KONIG.—THE ANTISEPTIC TREATMENT OF EMPY-
EMA.

In case the intercostal space is very narrow K. removes a section of the rib $1\frac{1}{2}$ c. m. long, at or near the most dependent portion of the cavity. He then washes out the pleural cavity with a 3 per cent. carbolic solution, inserts a drainage tube which is transfixed with a wire or long needle to prevent its slipping into the thorax, and then applies a thick Lister dressing, which will absorb the escaping pus. For the first ten days the dressing is renewed daily. It is essential that the patient should be cautioned to assume frequently a position to facilitate the exit of the discharge. He prefers to make the incision at the angle of the rib posteriorly, and if the incision through a single space is not sufficient, a double incision should be made or a section of rib removed. If the discharge does not become offensive after the first "washing out," it need not be repeated.

The drainage tube should be changed for one of smaller size as the case progresses, and should be removed and cleaned at each dressing, since it may become occluded by pus or granulations. It is to

be discontinued only when the discharge has entirely ceased.—*Ibid.*, p. 41.

GUSSENBAUER.—GASTROTOMY.—RESECTION OF THE DESCENDING COLON ON ACCOUNT OF CONTRACTION.—DEATH.

Patient, a man, had suffered for nine months with symptoms of intestinal stricture. The abdomen was so much distended, that no tumor could be recognized by palpation. A bougie introduced by the rectum, was arrested about one foot from the anus, nor would water pass this point though forced under considerable pressure.—Manual exploration of the rectum (Simon), revealed a tumor, about the size of a man's fist, situated about the junction of the descending and sigmoid colon. It was movable with the intestine and seemed to involve a portion of the mesentery and a loop of small intestine. The calibre of the gut was so nearly obliterated by the pressure of the swelling that neither the end of the finger nor a sound much smaller would penetrate it. On account of the tumors involving the small intestine lumbar colotomy was not approved and complete removal of the intestine involved in the disease was determined upon. Operating room heated to 25° R.—88° F and disinfected throughout the operation with 1 per cent. carbolic spray, although the atomizer was not allowed to play directly upon the patient. Abdomen opened in *linea alba* from an inch below the umbilicus to the symphysis and by transverse incision to the left lumbo-dorsal fasciæ. The tumor had involved the mesentery and a loop of small intestine and in separating it the intestine was opened, but was immediately sewed up. The strictured portion of the colon was cut away, the gut being compressed by the finger above and below the resected portion. A small quantity of fecal matter escaped into the peritoneal cavity. The ends of the gut were stitched together with fine carbolic silk sutures, the abdominal cavity carefully cleansed and the primary incisions closed by sutures. Lister dressing—four drainage tubes were left in wound. Patient rallied from operation and was comfortable for a few hours, but died during the night from "septicæmia due to escape of fecal contents in abdomen." The tumor had originated from the mucous membrane of the colon and was carcinoma. *Centralblatt für Chir.* Jan. 18, 1879, p. 41.

DÉSÈRES.—M. MARY.—VESICAL CALCULUS FORMED AROUND A FRAGMENT OF A BOUGIE.—LITHOTRITELY.—SUCCESSFUL.

Patient male, æt. 70. For two years had suffered with retention of urine due to enlarged prostate, compelling use of catheter; four months previous to operation, a piece of the elastic catheter had broken off and remained in the bladder, and soon afterwards symptoms of calculus developed.

Sept. 11th.—Despres having injected the urethra with oil, introduced the lithotrite and crushed the stone, which registered 1½ cm.; no anæsthesia; only particles of stone came away.

Sept. 13th.—Second operation.

Sept. 22d.—Fifth operation; a piece of the cath-

eter 2 cm. in length was extracted in the jaws of the lithotrite.

Sept. 29th.—Sixth operation; another fragment 5 cm. long extracted.

Recovery prompt with slight retention, which disappeared in a few days.—*Gaz. des Hôpitaux*, Jan. 16, 1879, p. 41.

LANDOUZY.—PECULIAR EFFECT OF THE APPLICATION OF A MAGNET TO A HYSTERICAL FEMALE.

At the instigation of M. Charcot, L. instituted the following experiment upon a hysterical female at La Charité. The patient suffered from such an intense abdominal distension (meteorism) that morphia had to be used hypodermically. The magnet was applied instead of the injections, and complete anæsthesia and unconsciousness followed; just as soon as the magnet was withdrawn consciousness returned and she then experienced pain at certain points that had been pinched (and which she had not felt) during the application. These phenomena repeated themselves with marked regularity. M. Berthelot remarked that it was advisable at times to change the real magnet for an imitation, in order to test how much deception was being practised by the patient. He recalled the case of the "electric girl," which for a long time had baffled most competent observers.—*Ibid.*, p. 45.

Chloroform Death.—Mr. Payne held an inquiry at Guy's Hospital as to the death of Mary Jane Edgington, aged 28, of Lower Norwood. While at work at a house about a month ago she accidentally got a pin she had in her mouth, in her throat. A surgeon altered the position of the pin, but did not remove it, and shortly afterwards an abscess formed in the throat. On Tuesday last, Mrs. Edgington entered the hospital, and in the afternoon of that day Mr. Jacobson determined to operate on her. Ether was administered by Mr. Wainwright, one of the house-surgeons; but as she took it badly its administration was suspended for an hour. The ether was again administered, and also some chloroform, and after about a minute the deceased began to breathe badly and the anæsthetic was withdrawn. Artificial respiration was resorted to, but she died on the following day. The cause of death was stated to be inflammation of the lungs, accelerated by the administration of chloroform. In answer to the coroner, Mr. Wainwright said the deceased did not object to the anæsthetic, but the husband averred that his wife had a great horror of chloroform, and when he saw her just before her death she said she had been murdered, and that chloroform had been administered against her wish. The jury returned a verdict that the deceased died from inflammation of the lungs, and that the death had been accelerated by the administration of chloroform.—*Brit. Med. Jour.*

THE HOSPITAL GAZETTE.

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EDITORIAL.

PLAGIARISM.

In all ages, and amongst all nations, the person who knowingly appropriates the property of others has been regarded as one, to put it mildly, who is devoid of the nobler traits in the character of man, and literary people of this day regard the person who purloins another's writings, and offers them as his own, as guilty of an act which should entitle him to none of the considerations of a gentleman. We frequently hear of this practice amongst our confreres in the literary world, especially in cases of translation from a foreign language, but until lately the accusations against members of our own profession have been few. This age, however, is one of book-making, and it is the ambition of every tyro in medicine to become an author. As a rule, the members of our profession are honorable, and would scorn the idea of expressing another man's thoughts without giving him due credit. These, when possessed of mediocre ability as writers, content themselves with reporting their cases and observations, leaving to their abler brethren the task of collaborating and analyzing the mass of practical facts furnished. Occasionally, however, we find men of little or no ability, ambitious to be considered authorities, who are guilty of the very reprehensible practice of plagiarism. For instance, in *The Cincinnati Lancet and Clinic* for December 21st will be found an article by Worthington Myers, M. D., of New York, on "The Influence of the Nervous System on the Health of the Mouth." In a later number, (Feb. 22d, 1879) of the same journal Dr. Jacob L. Williams, of Boston, speaking of this article, says: "It is not quite a verbatim copy of a paper written by me in 1872, and printed in *The Dental Cosmos*, of Philadelphia, in the December number of that year."

Again, in the March number of *The Physician and Pharmacist* the editor calls attention to a case of plagiarism perpetrated by a Dr. L. C. Raymond, of San Francisco, in a paper entitled "Womb Disease Cured by Angus Castus," and published in *The New York Medical Brief* for December, 1878. This paper is almost a verbatim copy of a paper entitled "Unexpected Cure by Angus Castus," by Wm. H. Holcombe, M. D., of New Orleans, published in *The American Homœopathist* for January, 1878. Speaking of this, the editor of *The Physician and Pharmacist* says: "Our first impression was that Dr. Raymond was a myth, and that some one not over scrupulous had foisted this article on our contemporary; but on referring to Butler's Medical Directory we find that there is a veritable Dr. Lee Chester Raymond, M. D., Bell, '67, in San Francisco, whose name appears there in extra large type, and who enjoys the honor of being a member of the Lake Shore Med. Soc. O., and Asst. Surgeon to the Women's Hospital in San Francisco. Further comment is needless."

These facts recall to our mind a remarkable similarity between a very able paper published in 1856 by a gentleman, now deceased, who is remembered by all who were favored with his acquaintance as one endowed with unusual attainments as an observing practitioner and as a scholar; and an article which appeared a few years ago in the pages of one of our contemporaries. We give below abstracts from both papers for comparison, omitting the name of the author [?] of the last paper, who holds a high position in this city, and enjoys a lucrative consulting and family practice, while many of his more unfortunate but perhaps more honorable professional brethren are compelled to toil incessantly in order to maintain a livelihood. Hereafter we shall not deal so mercifully with any member of our profession whom we find dishonoring it by the despicable practice of plagiarism, but shall hold him up to the scorn of his associates, which he justly merits.

A Statistical Contribution to our Knowledge of Abscess of the Appendix to our Knowledge of Abscess, and Other Diseases Consequent upon the Lodgment of Foreign Bodies in the Appendix Vermiformis. By ———, M. D.
By George Lewis, M. D.—*N. Y. Jour. of Med.*, 1856.

"J. M. Fanall, Esq. (*Ed. Med. and Surg. Jour.*, 1831, in a lengthy paper on phlegmonous tumors of the right iliac fossa, referring to two fatal cases of gangrene

"F. M. Fennell (*Edinburgh Medical and Surgical Journal*, 1831), in a paper on phlegmonous tumors of the right iliac fossa, refers to two fatal cases of gangrene of the

of the appendix vermiformis, reported by M. Vellemry, says it is remarkable that the disease terminated abruptly at the junction of the appendix with the cæcum."

"The appendix vermiformis cæci, as its name implies, is a small, hollow, cylindrical, worm-like process, varying from one to six inches in length, with rare exceptions having its point of attachment to the posterior, lower, and left portion of the cæcum, a short distance from the ileo-cæcal valve itself, like the cæcum, ending in a blind extremity.

"In two cases which fell under the observation of Dr. John Burne its origin was at the posterior, lower, and outer portion of the cæcum.

"Its diameter and length present considerable variety. In shape and form it resembles an elastic catheter. It is attached to the cæcum and iliac fossa by a triangular fold of the peritoneum (the meso-colon), which generally extends only a part of its length. At its junction with the cæcum it is wider than in any other portion, and in some subjects it is funnel-shaped, widening out to become continuous with the cæcum, which in such cases is very narrow.

At the point of communication of the appendix with the cæcum, a fold of its mucous membrane forms a more or less perfect valve, but never so perfect as to entirely close its mouth.

In its anatomical relations, it presents many varieties, which, in a pathological point of view, are of much importance. Most frequently it is found near the brim of the pelvis, situated on the iliac fascia over the outer border of the psoas

appendix vermiformis, in which the gangrenous process was found to terminate abruptly at the junction of the appendix with the cæcum."

"The appendix vermiformis is a small, hollow, cylindrical, worm-like process, varying from one to five inches in length, having its origin, with rare exceptions, from the posterior, inferior and inner side of the cæcum, a short distance from the ileo-cæcal valve, and ending in a blind extremity, like the cæcum. In two cases observed by J. Burne it was attached to the posterior, inferior and outer portion of the cæcum. Its diameter and length present considerable variety; it is attached to the cæcum and iliac fossa by a triangular fold of the peritoneum, which generally extends only a part of its length. At its junction with the cæcum it is wider than in any other portion. It has the same number of coats as the intestines, and its mucous membrane is studded with an almost uninterrupted stratum of closed follicles, and forms a valve-like fold at the point of communication with the cæcum. In its anatomical relations it presents many varieties, which in a pathological point of view are of much importance. Most frequently it is found near the brim of the pelvis, situated on the iliac fascia over the outer border of the psoas magnus muscle, coiled up behind the cæcum. Sometimes it descends vertically into the pelvis, sometimes it is turned upward and backward, encircling the cæcum, and extending up along the colon for four or five inches. In one instance, Cruveilhier saw its free extrem-

magnus muscle, snugly coiled up behind the cæcum; sometimes it descends vertically into the pelvis as in Case 42. Sometimes it is turned backward and upward behind the caput coli and colon (Case 33.) In one instance Cruveilhier states that he found the free extremity of the appendix in contact with the inferior margin of the liver.

Sometimes it is turned forward and downward in relation with the small intestines or bladder (Case 9); entangled in the mesentery, or in contact with the abdominal parietes, as in Case 15, or in cases still more rare it will form the contents of inguinal hernia."

"Numerous cases are recorded of substances found in the cæcal appendix of people dead from other diseases, who, during life, had no symptoms attracting attention to this organ. Dr. Blackadder [Ed. Med. & Sur. Jour., vol. xxii.] discovered in the appendix vermiformis of a person dead of phthisis, an earthy concretion, the size of a thrush's egg, who, during life, was never heard to complain of uneasiness in the region of the caput coli.

In the *New England Med. Jour.*, 1843, is the record of an appendicula vermiformis, exhibited before the Boston Pathological Society, which was taken from the body of a man, dead of pneumothorax, at the advanced age of eighty-eight years, and contained 122 robin-shot. During life, this man never had symptoms indicating disease of this organ. There were no adhesions around the appendix in this case, and nothing remarkable in its appearance, except in its unusual length."*

ity in contact with the inferior margin of the liver. It may also be turned forward toward the bladder, be entangled in the mesentery, or in contact with the abdominal parietes. In cases still more rare it has formed the contents of inguinal hernia."

"Numerous cases are recorded of substances found in the appendix of people dead from other diseases, who during life had no symptoms directing attention to this organ. Dr. Blachardier [Ed. Med. & Sur. Jour., vol. xxii.] discovered, in the appendix of a person dead of phthisis, an earthy concretion the size of a marble, who during life was never heard to complain of any uneasiness in the region of the colon. In the *New Eng. Med. Jour.*, 1843, we find the record of an appendix exhibited at the Boston Pathological Society, which had been taken from the body of a man dead from pneumothorax, at the age of eighty-eight years, and contained one hundred and twenty-two robin-shot.

There was no adhesions around the appendix in this case, and nothing remarkable in its appearance except its unusual length. It is stated that the man was excessively fond of game, and the shot found in the appendix were sup-

posed to have been contained in the game eaten."

* It is stated of this man that he was excessively fond of game, and the shot found in the appendix were supposed to have been contained in the game eaten."

The paper last published has no redeeming merit. It is made up almost entirely of portions of the article of Dr. Lewis literally transcribed, and of the views and deductions so ably advanced and advocated by Dr. Willard Parker some 12 years since, yet not one word of credit is given to these gentlemen for the material thus purloined, and it is only incidentally that they are referred to.

SELECTIONS FROM JOURNALS.

ON NIGHT COUGH.—BY REGINALD E. THOMPSON, M.D., F.R.C.P.

The investigation of the inherited tendencies to disease likely to be assumed by individuals is most important to the practical physician if he wishes to obtain a clue to the proper treatment of symptoms which may be indistinct in form, and it is only by being forewarned as to possible proclivities that such symptoms can be appreciated at their proper value.

The inheritance of so comprehensive a disease as phthisis has been generally considered as likely to be assumed *in extenso* by the offspring of a phthisical progenitor, and this may be a convenient aspect for those who assume that phthisis is a diseased entity which can be transmitted from one individual to another; but for those who, like myself, believe that phthisis is a common ending for a variety of diseases that are initiated in various ways and in different tissues, a terminus, in fact, towards which many different pulmonary diseases converge, and in which they ultimately lose their initial distinctions, more discrimination as regards the peculiar features which characterize the phthisical heirloom is especially demanded.

The transmission of disease by inheritance does not necessarily imply the transmission of the complete disease, but may only include a few characteristics of that disease, and hence we find symptoms slight in character and indistinct in form which eventually prove to be modifications of a more serious disease. For example, this is proved to be the case in some trivial forms of localized skin disease which are with much reason attributed to an almost worn-out inheritance of leprosy. By transmission through a number of generations, the disease becomes much modified, and its dangerous and universal development is eradicated.

In investigating the inheritance of a tendency to pulmonary disease, it is not sufficient to establish the previous development of a phthisis, but it is imperative to find out what peculiar forms of phthisis have been established in the family.

The special liability to asthma which is inherited

in many families in which a phthisical tendency may be established is one which it is peculiarly important to make out; and the more so as indistinct forms of asthma are sometimes developed in members of such families which cause a good deal of trouble to the patient, and sometimes to the physician if his diagnosis is incomplete.

There is a very persistent and harassing form of cough which accompanies many forms of pulmonary disease—phthisis, bronchitis, and others, which appears to be an undeveloped modified form of asthma.

The patient complains of being much disturbed, at night especially or early in the morning, and it is generally worse when the patient lies down and goes to bed. No narcotics in ordinary use for cough appear to have any effect, and it is only by asthmatic remedies that any relief is obtained. Many cases of this kind have now come under my notice which formerly used to trouble me not a little from the constant complaint that was made as to the distress arising from this obstinate night cough and the ineffectual result of opiates. In all those cases of this kind which I have lately investigated, there was a decided history of inherited asthma; but it will be sufficient if I quote two cases out of the number.

A lady, who had been confined three weeks, consulted me about a very persistent and harassing cough which kept her awake through the night. For this various remedies had previously been tried, opiates chiefly, without the slightest alleviation. A year before this her younger sister had applied to me for advice for a fully-developed asthma, which was treated successfully by asthmatic specifics. The remembrance of this gave a clue to the case, and investigation proved that asthma had been inherited from a grand-parent, the father and mother of the patient having been perfectly free from pulmonary complaints. Relief was at once obtained by Joy's cigarettes, which are often extremely useful in like cases.

A young lad, aged nine, was brought to me for advice respecting a persistent cough with which he had been troubled since an attack of measles eight months before. On examining him, I found a thickened condition of the alveolar tissue and harshness of respiratory murmur which appeared to depend upon an old condition of broncho-pneumonia. I ordered him some cod-liver oil and lactuca for his cough, but finding that the cough was still very troublesome, especially at night, I conjectured that the case was one of undeveloped asthma, and on investigation I found that the grandfather had been subject to asthma. In this case the burning of nitre papers removed the cough at once.

In none of these cases are there any nocturnal attacks of dyspnoea, so that the asthmatic nature of the symptoms is often indistinct; but the treatment by asthmatic specifics is so efficacious that there can be little doubt as to the appropriate remedies required, and until such remedies are administered the cough remains unalleviated.—*The Practitioner*.

RAPID LITHOTRITY.

Our readers are familiar with the new operation for stone in the bladder, devised by Prof. H. J. Bigelow, and described a year ago in this journal. When

the attention of the profession was first called to this procedure the cases adduced in its favor, though showing brilliant results, were too few in number to be conclusively demonstrative of its value. Since that time several surgeons have practiced Dr. Bigelow's operation, and both the results obtained and the opinions expressed by them appear very favorable to the new method.

One of the first to record his experience was Professor Van Buren, of New York, who, on the strength of six successful cases, speaks as follows: "Personally I feel much confidence that Professor Bigelow's novel proposition that lithotripsy may be safely accomplished in one sitting will be successfully demonstrated, and that his discovery of the hitherto unrecognized tolerance of the bladder—for it is certainly to be regarded as a discovery in the full sense of the term—will, by its great practical value, modify the future of lithotripsy."

Dr. H. B. Sands, of New York, has published a successful case, in which an operation lasting one hour and ten minutes, practiced upon a patient sixty-nine years of age, was followed by no bad symptoms, and resulted in recovery.

Dr. E. L. Keyes recently exhibited to the New York Pathological Society four calculi which he had crushed and removed in one operation by Dr. Bigelow's method, bringing the number of cases so treated by him up to thirteen. The first of the four stones weighed two drachms, and was removed in forty-five minutes. The second weighed six drachms, and was removed in an hour and two minutes; at the end of one week the patient went out to walk. In the third case the stone weighed six drachms; the operation lasted thirty-five minutes. In the fourth case the size of the stone was not stated; the operation last thirty minutes. In the course of his remarks upon these cases, Dr. Keyes said that "he had now performed thirteen operations by Bigelow's method, and it seemed to him that each additional operation, each increase of experience in its performance, was an argument in favor of the method. He had not had a fatal case, and believed that Bigelow's method would be the one which would supersede all others for the removal of vesical calculi."

Sir Henry Thompson, who is universally recognized as the leading authority on the subject of lithotripsy, has long been the advocate of a method which is the opposite of that now proposed. He has hitherto practiced and advised multiple sittings of a very short duration. In the last edition of his clinical lectures he spoke as follows: "The mere sojourn of the instrument in the bladder is a source of irritation precisely corresponding to the time, within certain limits, it continues there." He adds: "It has therefore been an object with me to lessen as much as possible the number of instruments employed, the amount of manipulation applied to them, and the time devoted to this process." An editorial article in the *Lancet*, contrasting his method with that of Dr. Bigelow, says: "Lithotripsy, as hitherto practiced by him and lithotripsy as recommended and performed by Professor Bigelow, are different operations, and based on opposite and contradictory principles."

Quite recently, however, he has published a lecture on Lithotripsy at one or more sittings, in which

the opinions and practice recorded are such as, in the words of the editor of the *Lancet*, "involve the abandonment of his old position." He therein shows himself to be favorably inclined, within certain limits, towards the new method, and records a case in which gratifying results were obtained by means of lithotripsy and evacuation combined, and terminated in a single operation. He cannot, however, as yet be said to have fully tested the capabilities of the new method; for, although he, in common with all lithotritists, has often accomplished the removal of small stones in one operation, with or without the assistance of an evacuating apparatus, he has recorded but one case where the size of the stone broken and removed in a single sitting was sufficient to entitle the operation to be classed with those of Dr. Bigelow. In this very recent case the stone weighed two drachms, and was therefore large enough to have required several sittings by the old method, though far below the size of some of the stones successfully removed in one sitting by other operators.

This stone, weighing two drachms, was removed in eight minutes, and inasmuch as the evacuating apparatus used was defective in some of the particulars considered most important by Dr. Bigelow, the rapidity with which the stone was removed testifies to the exceptional skill of the operator. It has, however, been noticed in this country that a considerable part of the time occupied by the operation is consumed in verifying its completion. Experience has shown repeatedly that although as much as two drachms of calculus may easily be evacuated in as short a time as eight minutes, somewhat more time is required to allow the operator to make sure that he has fully accomplished his undertaking, and to ascertain that no fragment remains in the bladder to act as an irritant or to form a nucleus for further deposit.

Instead of trying the perfected apparatus devised by Dr. Bigelow, Sir Henry Thompson has preferred to use Clover's original instrument, slightly modified, as he says, by himself, with evacuating catheters not exceeding 26 French in calibre—larger than these being "mostly dangerous and wholly unnecessary." Not only is his catheter smaller than that advocated by Dr. Bigelow, but the eye of his instrument, as figured by him, has a calibre considerably smaller than the already inadequate calibre of the catheter itself. The efficiency of the evacuating tube is thus very much diminished. The stone to be dealt with in his case being rather small, the disadvantages of the evacuating apparatus could hardly make themselves felt. It is to be hoped that Sir Henry Thompson, having taken this first successful step in the direction of litholapaxy, will consent to modify still further the operation and the apparatus to which he has been accustomed, and that he will be induced to try rapid lithotripsy with a still larger evacuating tube on a still larger stone.

The foregoing citations show that the new operation devised in this city is rapidly making its way into general acceptance as a safe and speedy cure for a painful and dangerous disorder, and that an amount of experience is now on record which shows that the claims originally put forward in behalf of

its security and efficiency were not excessive.—*Boston Journal*.

PHYMOSIS AS A CAUSE OF RUPTURE IN CHILDREN.

To phymosis, which occurs so frequently in children and is so often apparently harmless, numerous ill effects have been attributed. Incontinence of urine, fits and various spasmodic affections, masturbation resulting from the irritation caused by retained smegma, balanitis, and, later in life, epithelioma of the penis, have been said to be occasional results of this condition. Professor Sayre has called attention to phymosis as being a cause of paralytic affections of the lower limb. The first person to observe a connection between phymosis and the occurrence of hernia seems to have been Mr. Owen, who is quoted by Mr. Kempe as saying that "in cases of umbilical and inguinal hernia it is well to look to the size of the urethral and preputial orifices." Mr. Kempe, having noticed the frequent coincidence of phymosis and hernia, was thereby induced to make investigations in the cases occurring in the Children's Hospital, of which he is surgeon. He therefore took fifty cases of phymosis, unselected, and found that in thirty-one there was rupture. In five cases there was double inguinal hernia, and in many umbilical hernia existed in addition, this form not being counted when occurring alone. In no case was the rupture noticed at birth; the earliest was discovered at the age of three weeks, the latest at two years and a half. In all these cases circumcision was performed. In five cases the hernia disappeared entirely, and in all much improvement resulted. "It cannot be unreasonable," says Mr. Kempe, "in the face of these facts, to suppose that a long and tight prepuce may be a cause of rupture in children. The sequel of events is probably as follows: the abdominal parietes are naturally weak in children, which renders them less able to resist impulses which project the viscera against weakened parts. Here, then, is a remote or predisposing cause. The exciting cause is, I think, readily supplied by the frequent and continued efforts that the child makes to overcome the obstruction offered by the tight prepuce, and by the cries uttered consequent on pain caused in making these efforts."—*Boston Journal*.

SOLUTION OF QUININE AS AN INJECTION IN CHRONIC CYSTITIS.

In a previous report the use of bactericidal solutions for washing out the bladder in cystitis was spoken of. To the agents then advocated (salicylic acid, borax) quinine must be added as deserving a trial, on the strength of the results obtained from its use by Mr. Nunn in cases of chronic cystitis with decomposition of the urine within the bladder. The following is the method of preparing and of using the solution: "Dissolve twenty grains of disulphate of quinine in twenty-five ounces of water by the aid of a few drops of dilute sulphuric acid or a tea-spoonful of common brown vinegar. Of this solution inject into the bladder two or three ounces, and let it remain."—*Boston Journal*.

TREATMENT OF INCONTINENCE OF URINE IN CHILDREN.

In this troublesome and often refractory affection

there is a very simple means of prevention which occasionally proves successful, and seems therefore worthy of trial. It consists in modifying the diet of the child by diminishing the amount of meat, or by suppressing the use of meat altogether, for a while. The efficacy of this means in obstinate cases is testified to by two observers.—*Boston Journal*.

ERUPTIONS CONNECTED WITH MENSTRUATION.

Dr. Schramm has published in No. 42 of the *Berliner Klinische Wochenschrift* for 1878, the following observations. An unmarried lady, aged 36, of anæmic appearance, had suffered seven years from dysmenorrhœa, which she had contracted from a severe chill. Simultaneously, the dorsal surfaces of both hands were covered with disseminated brownish nodules, of the size of a lentil, which disappeared in the course of a week, but reappeared at the next menstruation on either place of the dorsal surface. Later on, similar nodules developed on the neck and the labia, accompanied by slight itching; sometimes a few pinkish irregular infiltration-would break out behind the ears; a few little spots which soon developed into blisters, were disseminated on the tongue. These eruptions were complicated with a circumscribed painful swelling of the orifice of the urethra, which greatly impeded micturition. The eruptions and papules on the neck and labia always lasted for a few months, while the other nodules generally disappeared within a week. On vaginal examination, it was found that the patient suffered from ante flexion of the uterus, complicated with catarrh of the uterus and the vagina. These affections were treated methodically, and the patient ceased to suffer from dysmenorrhœa and from the eruption. After her recovery, and after exposure to much fatigue, she had the menstrual pain, and the eruption reappeared, but only once. Another patient, who was consumptive and suffered from retroflexion, had her back and shoulders at the time of the catamenial flow, covered with a peculiar eruption in the shape of small red nodules, which formed long lines, and gave to the skin the appearance of being of an uniform red color. They were accompanied by a sensation of some tingling and itching, and disappeared after three days. Dr. W. Wagner has also published some cases of "catamenial erysipelas" in the *Allgemeine Medicin. Central Zeitung*, No. 94, 1878. The first case was that of a girl, aged sixteen, who had menstruated regularly since the age of fourteen, but had, since the date of the first flow, suffered from erysipelas of the face, which began four or five days before the menses, and lasted about eight days. It spread over the head, thereby causing the hair to fall off. Her head had grown almost bald, so that she always had to wear a handkerchief over it. Her health was good, and nothing abnormal could be detected in any internal organ. She was treated with Fowler's solution and iodide of potassium, but without any result. The second case was that of a country girl, aged seventeen, who menstruated for the first time six months ago, and had had erysipelas of the face shortly before this. The inflammation increased during five days, but vanished speedily with the appearing of the flow. In this case, however, the erysipelas was not repeated with the same regularity as in the first case;

it was only observed whenever the menses were irregular. The patient was very anæmic, and was accordingly treated with dialysed iron. The third patient was a woman, who had reached the time of the menopause. She had always been strong and healthy, and had never had the least trouble during the time of the catamenial flow. The menses disappeared for the first time at the age of forty-seven, for about eight weeks, when they reappeared; they were accompanied by a very slight erysipelas of the face. The same phenomenon was repeatedly observed during the next eighteen months, when the periods disappeared altogether. In the next year, a very slight erysipelas was observed three or four times, which, however, did not spread any further than the nose. The first case, undeniably, is the most peculiar one, as it could not be traced to any pathological affection of the genital organs, and the flow itself never had any influence on the duration of the erysipelas. The two other cases were evidently in some way influenced by the period, as they were only observed at the time of its cessation, or when it was irregular.—*Brit. Med. Jour.*

tory, and the edge of the bowel was attached to the edge of the incision by two stitches in front and by one behind. On account of the deep cavity left in the ischio-rectal fossa, it was thought best to leave the bowel free at the side. No dressings were applied.

The immediate result of the operation was to afford complete relief from the former severe pain, a feeling of soreness only remaining, which passed away in twenty-four hours. The patient recovered without any complication, and with perfect action of the sphincter. She left the hospital well in all respects at the end of seven weeks.

Under the microscope the epithelioma was seen to be of the cylindrical variety.

With the view of obtaining more rapid healing, Mr. Furner was desirous of completing the operation with the knife only; but upon making a small transverse incision through the coats of the bowel, there was so much general hæmorrhage that it was thought expedient to use here the benzoline cautery. The first incision through the bowel in a longitudinal direction was followed by very little hæmorrhage.—*Lancet.*

EPITHELIAL CANCER OF THE RECTUM; EXCISION; RECOVERY.

Mary M—, aged sixty-four, pale and lean, was first seen on Oct. 16th, 1878, when she complained of constant severe pain in the lower part of the bowels, accompanied by a discharge of blood per anum.

On examination, externally there was no sign of disease, but the finger passed into the rectum came upon a hard, knotty, uneven mass, occupying the left wall of the bowel, commencing about half an inch within the margin of the anus; it extended thence about two inches up the bowel, not quite reaching the middle line posteriorly, but passing that line anteriorly; the surface was very sensitive, and bled freely on manipulation; there were no appearances of secondary deposits.

The patient stated that until two years ago she was quite well; from about that time she noticed a discharge of blood from the rectum; this was continuous day and night, accompanied with constant and very severe pain.

There appeared to be a promise of a good result after removal of the growth. Accordingly on October 26th, the patient having been prepared for the operation, a sharp-pointed bistoury, introduced into the rectum, divided the wall of the bowel in the middle line down to the coccyx. With a scalpel a second incision was made between the external and internal sphincters, beginning from the coccyx behind, and ending beyond the anterior portion of the disease. By dissection in the ischio-rectal fossa the diseased mass was freed from its connexions here. Next, the rectum was carefully dissected from the vagina, and higher up from the peritoneum, which was seen during this part of the operation. The bowel, being thus free from its connexions in front, behind, and on the left side, the left half was drawn out through the anus, and the benzoline cautery was used to burn through the wall of the rectum clear above the diseased mass. Four catgut ligatures were applied to branches of the inferior hæmorrhoidal ar-

DEATH UNDER CHLOROFORM.

On Wednesday, February 26th, an inquest was held at Rainham, near Sittingbourne, Kent, before Mr. W. J. Harris, coroner, touching the death of Harry Gray Wakeley, about eight years of age. Mr. Penfold, surgeon, practising at Rainham, said he had been the medical attendant of the family of Mr. Wakeley of Rainham for nearly twenty years. On Thursday evening, January 29th, he was sent for to see the deceased, and found that he had been crawling on the floor and a needle had penetrated his right knee. He said that he had pulled a piece of needle out of his knee; it was supposed that the other piece of the needle remained in the knee; and Mr. Penfold ordered the usual treatment. The case went on favorably for about five days, when inflammation of the knee took place, and was followed by abscess. After consultation with Mr. Shuter of New Broad Street, an operation was decided on. On Tuesday, February 25th, Mr. Penfold and Mr. Shuter proceeded to operate; and, it being a long and painful operation, they thought it advisable, having first both examined his heart, to give him chloroform. Mr. Penfold accordingly administered chloroform, while Mr. Shuter performed the operation. The operation was finished, the wound dressed, chloroform had ceased to be administered for about five minutes, and they were preparing to place the limb on a splint, when lividity of the countenance was noticed. Mr. Shuter and his assistant immediately performed artificial respiration. Mr. Penfold got ready a galvanic battery immediately, and they continued artificial respiration and the use of the battery for nearly three-quarters of an hour, but without avail, death having resulted from failure of the heart's action. The quantity of chloroform used was four drachms. Mr. Shuter gave corroborative evidence. He said that the chloroform was skilfully and properly administered by Mr. Penfold, who had come prepared for any emergency. There was no disease of the heart. The coroner having summed up, the jury returned a verdict of "Death by misad-

venture, arising from a failure of the heart's action."
—*Brit. Med. Jour.*

THE INOCULATION OF RABIES.

The labors of Renault demonstrated that although rabies is communicated by inoculation of the saliva, it is not communicable by inoculation of the blood or the tissues. The saliva, however, is a mixed liquid, containing, besides the secretion of the salivary glands, buccal mucus and mucus from the air passages. Which of these contains the virus? This question has been investigated by M. Paul Bert, who has communicated the results of his experiments to the Société de Biologie of Paris. The observations were made with the saliva and pulmonary mucus. A rabid dog was killed, and the salivary glands removed, the parotid and the sublingual and submaxillary glands together. They were bruised in a mortar, and the expressed liquid was injected by means of a syringe. The pulmonary mucus was obtained by squeezing the lung. One dog served for a series of experiments of the same kind. All the results, with two exceptions, were negative. The submaxillary and sublingual emulsion was injected into one dog on the 23d of February, the 28th of March, and the 16th of April. The parotid emulsion was injected into another dog on the 30th of April and the 11th of May, in each case with negative results. The pulmonary mucus was injected into a third on the 28th of March and the 30th of April. This last experiment gave positive results. The dog died of rabies on July 26th, the period of incubation having been three or four months. Into a fourth dog was injected, on March 28th, saliva taken from two rabid dogs and kept some days in alcohol. Into two other dogs an injection was made of saliva—i. e., buccal fluid—from a rabid dog, one with the fluid mixed with human saliva, and passed through Pasteur's plaster filter, the other with some of the residue which remained upon the filter. The former died, unfortunately, from local accidents, six weeks after the first, and six days after the last injection. The latter died with well characterized rabies a month after the injection. It is remarkable that in seven out of fifteen inoculations suppuration followed, causing death in four cases. The unusual frequency of suppuration suggests whether tissues of rabid animals have not a septic property independent of their specific virulence. From these experiments M. Paul Bert infers that it is probable that the saliva alone does not contain the poison of rabies. The experiments with filtered buccal fluid must be repeated. Even the observation with pulmonary mucus needs confirmation, since an anterior infection by a rabid animal was possible. The experiments are thus important as suggestive rather than conclusive. They were carried out with the assistance of a veterinary surgeon, M. Bourrel.—*Lancet*.

NEWS ITEMS AND NOTES.

Honors to Professor Samuel D. Gross.—The occasion of the complimentary dinner to Dr. S. D. Gross, given by his professional friends in commemoration

of his fifty-first year in the profession of medicine, came off at the St. George Hotel, Philadelphia, on Thursday evening, April 10th, some of the most distinguished physicians in the country being present. The room was handsomely decorated with flowers. Dr. Gross occupied the seat of honor at the head of the table. Seated near him were distinguished physicians and surgeons of Pennsylvania, New York, New Jersey, Delaware, Massachusetts, Maryland, Virginia, Kentucky and the District of Columbia.

In addition to the above States represented in the gathering, which numbered about 120, California and Indiana were represented by Dr. R. B. Cole from the former, and Dr. T. Parvin from the latter State. Dr. Gross was the recipient of many large baskets of handsome flowers. The dining room was handsomely decorated, and the band, which occupied the hall outside of the folding doors, played at intervals between the speech-making till nearly one o'clock.

The subscriptions to the dinner were limited to 100 of Dr. Gross' professional friends in Philadelphia. Among the distinguished guests present outside of Philadelphia were Professor Austin Flint, Sr., Professor James R. Wood, Professor Austin Flint, Jr., Dr. Bozeman, Professor A. C. Post, Dr. George F. Shrady, editor of the *Medical Record*, Dr. M. J. Asch and Dr. L. A. Sayre, all of New York; Drs. Van Bibber and Smith, of Baltimore; Surgeons Otis and Norris, U. S. A., of Washington; Professor Benjamin Silliman, of Yale College; Professor D. W. Yandell, of the University of Louisville, Kentucky, the school with which Dr. Gross was formerly connected as professor of surgery; Dr. Jamar, of Maryland; Dr. Bowen, of New Jersey, and Dr. Cardeza, of Delaware. Among the prominent Pennsylvania physicians present were Dr. Trail Green, of Easton; Drs. Helshy, Lyon and Crawford, of Williamsport; Dr. Given, of Clifton; Dr. Kerlin, of Media; Dr. Herr, of Lancaster; Drs. Craig and Lineaweaver, of Columbia; Dr. Bland, of Pottsville; Dr. Anderson, of Ardmore. Among the distinguished city physicians present were Drs. Hayes Agnew, Da Costa, Fricke, Levis and Wallace; Drs. Joseph Pancoast, S. Weir Mitchell, Andrew J. Nebinger, J. Aitken Meigs, S. W. Gross, Professor R. E. Rogers, Elwood Wilson, Thomas S. Kirkbride, E. D. Gardette, Albert H. Smith, William Goodell, J. E. Mears, T. J. Morton, A. Hewson, J. H. Brinton, William Thompson, Harrison Allen and James Tyson.

Dr. Yandell, the successor of Dr. Gross in the chair of surgery in the University of Louisville, came from his Kentucky home loaded down with flattering messages from Dr. Gross' professional brethren in that city. Among the congratulatory messages read by the secretary of the committee on arrangements was the following from President Lyon, of the Detroit Academy of Medicine, in Michigan:

DR. S. D. GROSS, Philadelphia:

The Detroit Academy of Medicine send hearty congratulations on this jubilee in your professional life. May years of work crown with new honors one of whom America is justly proud.

A. B. LYON, President D. A. M.

Other messages of congratulation were read from Drs. Bowditch and Storer, of Boston; Dr. Oliver Wendall Holmes, Professors Van Buren, Barker, Sands, Hamilton and Parker, of New York; Surgeon General Barnes and Surgeon Billings, U. S. A., of Washington; Drs. Chaille and Richardson, of New Orleans; Professor Johnston, of Baltimore; Professor Cabell, of the University of Virginia, Charlottesville; Professor N. S. Davis, of Chicago; Professors Hodgen and Gregory, of St. Louis, and Dr. Kimloch, of Charleston, S. C.

The first in order on the programme was the congratulatory address to Dr. Gross, delivered by Prof. D. Hayes Agnew. In response Prof. Gross thanked his many friends for all their kind wishes and services, reviewed his professional career during the past fifty years, painted a future full of medical and surgical progress and sat down amid great applause.

On his right sat Professor Austin Flint, Sr., of New York; on his left Dr. Hayes Agnew, the presiding officer. When Dr. Agnew closed his introductory address to Dr. Gross, there was an interesting occurrence. Touching Dr. Gross on the shoulder, he said: "Allow me, in the name of your professional friends, to pin this token on the lapel of your coat."

When he took his hand away a costly gold medal set with diamonds and brilliants, gleamed from Dr. Gross' left shoulder. On the reverse side was this inscription:

PRESENTED
TO
DR. S. D. GROSS
BY
HIS MEDICAL FRIENDS,
IN COMMEMORATION OF HIS
51ST YEAR
IN THE PROFESSION,
APRIL 10, 1879.

Professor Rogers, of Jefferson Medical College, delivered the address of welcome to the guests present. Dr. Wood, of New York, responded. The toasts were: "To American Surgery," responded to by Professor Post, of New York; "Medical Service of the Army and Navy," by Surgeon Norris, of Washington; "The Medical Profession," by Dr. Green, of Easton. Remarks followed from Professor Silliman, of Yale College, and others.

Humps.—A deformed man died some time ago in the Rue Cuvier in Paris, who spent his whole life in studying hump-backs. After his death, it was found that he had left no will, but, instead, a manuscript of two thousand pages on the subject of hump-backs. Being wealthy and a bachelor, he spent fifty years of his life in traveling for the purpose of studying his subject in different countries. According to him, the largest number of deformed people occurs in Spain, there being in one place as many as one hump-back to thirteen normal individuals. He assumes that there are about a million deformed individuals in the world.

Cæsarian Section.—A case is recorded in *Le Progrès Medical*, January, 1879, in which the operation of Cæsarian section was performed ten minutes

after the death of the mother, and a living child extracted. The mother was a manufacturer of hats, and lived constantly exposed to mercurial fumes. She had reached the seventh month of gestation when she was attacked with intra-peritoneal hemorrhage, from which she died. After death the child was found upon auscultation to be living, although the pulsations were feeble. The abdomen was immediately opened, when large quantities of blood and serum escaped. Artificial respiration had to be resorted to, and was continued an hour and a half before the child began to breathe.—*Canada Lancet*.

Pictures from the Parisian Hospital.—Professor (who has his class in the wards) to patient, "What is your occupation?" Patient (who has pulmonary disease), "Musician, sir." Professor, to class: "There, gentleman, at last I have the opportunity of demonstrating what I have often told you in the lecture-room, that the wear and tear on the respiratory tract caused by the blowing of musical instruments, is a fertile source of just such difficulty as our patient here labors under. (To patient). What instrument do you play, sir?" Patient: "The bass drum!"—*Chicago Med. Jour.*

Book Agents Beware.—A physician in a city not a hundred miles away, being continually pestered by book-agents, peddlars, sewing-machine men and beggars, bethought him of a device to rid himself of these people. He had a skeleton in a cabinet near the office-door which opened on the street, so arranged that by turning a spring the skeleton advanced some four feet into the room. The first entry after the affair was "rigged" was a boy peddling matches. As he entered the doctor touched the spring and out stalked the skeleton. The boy started back in horror, dropped his basket of matches, and fled. Outside of the house he stood, trembling with fright. The doctor, after having laughed until tears came into his eyes, started for the door with the basket, not wishing the boy to lose it. When he opened the door the boy started to run.

"Here, take your matches," said the doctor.

"No you don't!" said the scared urchin, "you can't fool me, if you have got your clothes on."

An Electric Mirror for Examining the Cavities of the Body.—Dr. Hedinger, of Stuttgart, has introduced a variety of mirrors, of different shapes to suit the various cavities, which will doubtless prove to be superior to those at present in use. The light generated by passing a powerful electric current through a platinum coil lights up the cavity, and at the same time, by keeping the mirror warm, prevents the condensation of moisture upon its reflecting surface. Silver is used for the reflecting medium, since it is not in danger of being broken by the moderate amount of heat employed.

BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 37. Week ended March 22d, 1879.]

OFFICE SURGEON-GENERAL, M. H. S., Washington, March 22d, 1879.

CITIES.	Total Deaths.	Annual Rate per 1,000 of Population.	DEATHS FROM—					
			Diphtheria	Scarlet Fever.	Enteric Fever.	Acute Lung Diseases.	Phthisis	
New York.....	623	30.6	14	65	1	112	89	Whooping Cough caused 26 deaths.
Philadelphia.....	278	16.7	7 (37 cases.)	12 (96 cases.)	4	34	48	
Brooklyn.....	208	19.16	12	8	2	37 Pneumonia.	25	
St. Louis.....	114	12.	2	..	2	13	20	
Chicago.....	138	15.6	12 (14 cases.)	4 (13 cases.)	4	24	12	
Boston	147	21.	8	3	1	21	23	
Baltimore.....	147	21.	4	6	1	28	26	Measles, 2; Whooping Cough, 8; Cer. Spinal Fever, 2; Erysipelas, 2.
Cincinnati.....	116	21.5	6	18	2	20	10	
District of Columbia.	77	25.	1	5	1	29	12	Pneumonia and Infantile Convulsions prevalent.
Pittsburg.....	42	15.	4	3	2	7	3	
Buffalo.....	35	13.	6	4	..	1	6	Cer. Spinal Fever, 3; Croup, 4; Erysipelas, 1.
Cleveland.....	51	16.4	2	1	..	11	4	
Newark.....	67	27.9	3	2	2	6	15	
Providence.....	30	15.6	1	..	1	4	8	" Public health better than usual at this season.
Richmond.....	25	16.45	..	2	..	3	4	Whooping Cough, 1.
New Haven.....	26	22.5	1	1	..	..	..
Portland, Me.....	13	19.	1	..	..	1	3	
Savannah.....	17	31.5	..	..	..	2	4	Whites, 7 deaths; Colored, 10 deaths.
Total for week.	2,154	Average 20.2	84	134	23	352	312	
San Francisco, week ended March 14th	83	14.4	5	1	1	11	10	Cerebro-Spinal Fever, 2; Croup, 4.
New Orleans, week ended March 16th	84	20.8	1	..	..	18	17	" Diseases of Air Passages prevalent.
Montreal, week ended March 15th...	71	31.	12	..	1	..	7	Small-pox, 12.

Bermuda.—In a population of 15,300 there was but one death (from old age) during the two weeks ended March 11. Two cases of yellow fever in hospital.

Havana.—Week ended March 22. Small-pox caused 11 deaths, yellow fever, 1. During the month of February, the total deaths were 632, an annual rate of 42 per 1000 of the population. Diarrhoeal diseases caused 70 deaths, small-pox 45, yellow fever 13, malarial fevers 16, enteric fever 10, diphtheria 7.

St. Petersburg.—Week ended Feb. 22. Deaths 620. Rate 48. Small pox caused 56 deaths, fevers 49. The imperial order directing the burning of the infected houses at Wetlyanka has been executed

in part, and extraordinary powers have been conferred on the governor of the district, under which vigorous efforts are being made to improve its sanitary condition. The towns adjoining the infected district as well as the cities of St. Petersburg and Moscow are taking measures against the possible extension of the disease on the approach of warm weather by cleansing and disinfection of unsanitary quarters, issuing of cooked food to the poor, erection of temporary buildings for the reception of refugees from the infected districts, and furnaces for burning infected clothing.

J. B. HAMILTON.

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LECTURES.

THE DIAGNOSIS OF DISEASE IN CHILDREN.

A LECTURE.

BY

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[Reported for *THE HOSPITAL GAZETTE*.]

Perhaps nothing is more common in our profession than the remark, "Who can tell what is the matter with a child?" We hear it everywhere employed, as well by the educated professor as by the tyro who honestly, but parrot-like echoes it, and makes it the excuse for a blind mode of treatment of his valuable and always interesting little patients. Starting out with such an impression, need we wonder that the novice in our art makes no attempt at a diagnosis when called to a child, but hastily jumps to a conclusion, or thankfully, though blindly, accepts the decision of the wise old women who may be present, names the disease according to their views, prescribes with equal wisdom, and then leaves the case to the care of the good angels who are ever watching, though unseen, over the cradles of infancy.

Startling as is the mortality in childhood, it would be vastly greater were it not for the wonderful tendency to health so strongly inherent in the system of the infants. This is so evident that no one of any observation can fail to be struck by it. Even under the most unfavorable conditions, the vital tenacity in children is remarkable. We constantly find them struggling back to life and health when all hope seems to have fled. For this reason, if for no other, the physician, while giving a guarded prognosis, should be careful as to the utterance of too positive assertions, for, much to his discredit, he will often at the next visit find his little patient much improved, and determined to get well in spite of the doctor. Now, should some other of the fraternity have been summoned in the interval, the new comer carries off the credit, due solely, perhaps, to the healing power of nature.

Much, however, of the uncertainty in the treatment of diseases of children is due as well to the utter, the inexcusable ignorance, on the part of medical men, of the peculiarities of infant life. Fancy a physician announcing heart disease, or some equally serious affection, because he finds the heart beating at the rate of 100 strokes a minute; or prescribing for a diarrhoea because there have been three or four natural passages in the twenty-four hours. Yet just such errors in diagnosis have been made, and will continue to be made until physicians come to regard the study of this branch as equal in importance with

surgery or midwifery. Perhaps the latter allusion is especially unfortunate if we pause to consider the usual amount of study bestowed upon it. For here also do we constantly find the medical attendant in blissful ignorance of the true condition, and generally happy in the thought that nature is usually equal to the task of delivery. But we must not digress, lest we lose sight of the important matter before us.

The student of morbid anatomy, in order that he may set a proper value upon the diseased appearance of tissue, must first learn to know that tissue in its healthy condition. So the student of the diseases of childhood is imperatively required to be well versed in all the peculiarities appertaining to childhood. Therefore it behooves him to commence his studies by acquiring a thorough knowledge of the infant from the hour of birth up to the time when, by increasing age, it has ceased to retain those distinguishing characteristics which so widely separate it from the adult.

Again, he must labor to acquire that tact, that nameless power, by which he can compel these little ones to unlock the mystery which surrounds them, and thus afford him a clue by which to diagnose their diseases. It is not always necessary to ask questions, and perhaps, as is so often the case, receive silly answers, in order to learn the condition of the patient. What so easy as to watch the child, note its respirations, their number and manner; the pulse; the temperature; the color of the skin; the presence of eruptions; the movements of the child—giving to each its true value? Then, the history of the sickness to be gathered from the nurse or mother; the history of its surroundings, taking in also a full account of the locality in which it resides, or where it may have been exposed to disease; in short, never hastening to a conclusion, but patiently, earnestly, it may be with infinite labor, slowly arriving at a decision. Let me illustrate: A physician is called to see a child. It has had a convulsion. It may be that the spasm is over, and the little one is lying in a more or less perturbed state on its mother's lap. Now the physician is anxiously expected, immediately upon his entrance, to do something for the relief of the sufferer. Often, under the pressure of the surroundings, he hastily concludes as to the nature of the case, and as hastily and injudiciously prescribes. Perhaps he even incautiously announces his diagnosis and prognosis, and the sequel will again and again demonstrate all too plainly the error into which he has fallen. The wise physician shows no perturbation, no haste, acts as though it were a common, every day case, still showing that he fully enters into the general anxiety, and is alive to the importance of immediate action. To gain time he may order some domestic remedy, and then calmly set himself to learn the whole nature of the case. He makes inquiry as to the attack, its suddenness, the attending circumstances, the probability of an injury, excitement, or fright; the previous condition, etc., etc., and soon diagnoses the presence of indigestible matter in the stomach, administers an emetic, and the result speedily relieves the anxieties of all. Or the prevalence of scarlatina or diphtheria in the neighborhood, and certain pathognomonic symptoms, induce the prediction of an eruption or

of a sore throat, and again the result proves the correctness of the diagnosis.

In no branch of our profession is it so necessary that the physician should possess that peculiar magnetic power, that attraction, which at once enables him to become on a happy footing with his little patient. It is that indescribable manner which at once assures the baby that it is approached by a friend, that it has nothing to fear; and it accordingly receives your advances half way, and unwittingly aids you in obtaining all the information you may desire.

Apart from the generally supposed difficulty in ascertaining the nature of disease in children, it must be remembered that the usual diseases to which they are subject are almost entirely to be seen in childhood, many rarely occurring among adults. Again, the value of certain symptoms greatly differs according to the age.

Let us in some detail, examine these peculiarities. Shortly after birth (say within two to six days) we rarely fail to find the cutaneous surface quite extensively covered with a peculiar red or reddish yellow eruption, commonly called "the gum" by the old ladies. The varieties are usually called red gum or yellow gum, and with the latter there is often associated more or less of jaundice. This seems to occur almost entirely without any other appreciable symptom, and only excites comment or alarm on the part of those who are ignorant of its nature. It usually disappears in a few days, and requires no medication beyond cleanliness, the avoidance of soap, which rarely fails to irritate the delicate surface of the new born child, and, in warm weather, the frequent use of tepid baths or even of cold sponging.

The sudden appearance of an eruption like this, especially if there be a coincidence of other symptoms, a supposed heat of surface, rapid pulsation, etc., will occasionally, in a hasty examination, give rise to an error in diagnosis which would be laughable were it not for the danger thus involved. Indeed, I knew of an instance where such an eruption was gravely pronounced to be measles, and was about to be treated accordingly, when, fortunately for the child, but to the reverse for the Doctor's reputation, an old lady relative stoutly insisted that it was nothing but "the gum," and so it proved. Here, a little more care and caution would have marked the absence of coryza, and the usual accompaniments of rubeola, and at least have saved the profession from another chance to fling at us as pretenders.

Jaundice, quite marked, is a not infrequent visitor during the first two weeks. Nor can we be surprised at this when we reflect upon the sudden and remarkable change that has just occurred in the entire economy of the child. By the cessation of the placental circulation, the circulation of the blood in the liver is changed, the amount of blood carried directly to the capillaries of that organ is materially lessened, and in turn a portion of the bile is carried into the capillaries, and thus displayed beneath the skin. This, like the previous trouble, generally disappears unaided, and rarely does it become requisite to invoke the aid of medicine. By the end of the second week, the yellowness has quite gone, and the skin presents a natural aspect.

A more important appearance is that known as

cyanosis, morbus ceruleus. At first, say for a few hours after birth, the entire surface of the child is deeply tinted, somewhat livid, but this usually passes off by the end of twenty-four hours. Should this hue persist, it may be due to a want of complete aeration of the blood in its passage through the lungs; or where it is more particularly noticed to increase by efforts, as crying, etc., it may positively be regarded as due to malformation, generally of the heart, or more rarely of the larger blood vessels. Where lividity occurs later, and especially after previous evident good health, it is most surely due to some acute form of disease which interferes with the oxygenation of the blood.

Great pallor in children marks a grave form of disease, loss of blood, or a drain of some kind, or the absence of proper quality and quantity of nutritive food.

The face of a child is perhaps as valuable a monitor as one could desire by which to learn what is taking place in its system. Its suffering can not be hidden, nor can it counterfeit what it does not feel. The corrugation of the brow teaches us that pain affects it, and that the brain is more or less involved. Couple this with dilatation of the nostrils at every inspiration, and we may look with positive certainty for inflammation of the lungs or kindred trouble. When we have increased heat of surface generally, the eyes squinting, rolling of the head, drooping of the eye-lids, brain affection is present.

Children who have suddenly begun to assume a pinched appearance about the face, rings about the eyes, hollow cheeks, prominence of the cheek bones, and general pallor, are the subjects of wasting from the bowels either by diarrhoea or some other affection. In nothing do we see this so marked as when, during the hot summer months, we are met at every turn by the sufferers from cholera infantum. Here, however, the change is extremely sudden. In a few hours the baby comes to look like a little old man or woman, and again and again, the mother would fail to recognize her own loved one, were she separated from it only a few hours.

The squinting above alluded to, technically known as strabismus, is always a symptom to be regarded with anxiety. Though we often meet with it without any appreciable brain affection, and where we are compelled to believe it to be solely the result of a muscular paralysis, yet it usually serves as a beacon light to warn us of the approach of danger. Hydrocephalus, abscess in the brain, or effusion merely of serum, or meningitis, all are heralded by this sinister symptom.

A turning in of the eyes, with a downward direction, coupled with a face comparatively small, while the upper part of the head is large, is evidence of chronic hydrocephalus. Along with this, we have the fontanelles or "moulds" as they are familiarly called, and the sutures of the skull greatly enlarged. The bones of the head are very thin and yield readily to slight pressure. As a general rule the hair is wanting or very sparse. When we find the cranial bones expanded just above the ears, while those of the front are scarcely, if at all, changed, there is reason to diagnose hypertrophy of the brain.

Much also may be learned by the movements of the child. When in repose, its limbs should be sup-

ple, the joints easily bended, the muscles relaxed. When, on the contrary, we find rigidity of the limbs, and spasm of the muscles, the brain shows evidence of injury. Affections of the brain and spine are always accompanied by retraction of the head and limbs; fitful, spasmodic motions of the arms and legs; a turning in of the thumbs; the great toes drawn forcibly away from their fellows; semi-consciousness, the child lying as though half asleep, the eyes half closed, and the eye-balls drawn up or exhibiting a decided squint.

Headache in an infant would be shown by intolerance of light, corrugation of the brows, startings at slight noises. The child often involuntarily points out to the observant physician the seat of pain, as when suffering from irritation of the gums it carries its hands to the mouth, or when the ears are affected it rubs the ear irritably or presses it against its mother. Sore throat is thus shown when the child clutches its throat constantly, as though to grasp something which annoyed it. Here an additional symptom is given when we cause the child to drink; it eagerly takes the fluid and gulps it down with an effort, as in pain, and at once bursts into a cry, or perhaps allows the fluid to run out from the mouth, as though unable to swallow. When the child cries its voice is greatly changed, being hoarse and muffled, as in croup, or severe laryngeal trouble, or sharp and piercing in other affections.

The voice is extremely apt to be changed in the various forms of infantile disease. Thus in brain disease the child cries as though irritated; it has a shrill, vexed sound. So in cholera infantum, exhausting diarrhoea, etc., it is weak and complaining in tone. So readily does the sunshine spread over the face of a child that is not seriously ill, that the constant absence of a bright, happy appearance on the countenance should always be regarded with apprehension.

The action of the lungs is not always as sure an evidence of an abnormal tendency. Thus it is quite a usual thing to observe a child in apparently perfect health sigh deeply again and again, as though in deep trouble. It is only by uniting other symptoms with changes in the respiration that we may arrive at a diagnosis that is really trustworthy.

The pulse, as before mentioned, is extremely rapid as compared with that of the adult, averaging 150 beats in the minute during the first month. Hence much acceleration would be beyond counting. In fevers, inflammations, indigestions, we find the pulse quite frequent. In brain affections it is slow and laboring. In meningeal trouble it is liable to intermit. In all there is a great tendency to exacerbations, and intervals when the pulse appears almost normal.

The heat externally varies with the surrounding temperature; internally it is more positive. The increase above the normal in ordinary disease is rarely beyond two, or at most, three degrees. Where it ranges higher the prognosis is extremely grave, and the form of disease may be looked upon as malignant. The late Prof. John K. Mitchell, formerly of this school, always dwelt upon the peculiar burning heat given forth by a child that was sickening with scarlatina. In diseases where the toxæmic effect is pronounced, the heat is increased at first, but

speedily is reduced to the normal, or even below. This reduction is generally an unfavorable symptom, and is usually observed as death approaches. I have frequently felt the breath from a dying child cold to my face or hand, and have been compelled to give an unfavorable prognosis though other symptoms yet remained hopeful. I would urge earnestly to all who desire to study satisfactorily the diseases of infancy, that they should use the thermometer carefully and learn to appreciate to the full its changes. I recommend you to purchase a charming little book by my friend Prof. F. Seguin, of New York, entitled "Manual of Thermometry, or Family Thermometry."

Having learned this much by observation externally; we have yet abundant means to aid us in our researches with the child.

Inspection of the mouth will exhibit what is present there; the color of the tongue, cheeks, gums and fauces, any deposit and its nature, inflammation, swelling, foreign bodies, etc. How quickly does the mother recognize by a foul odor on the breath of her child, that there must be some disease of the throat to which she anxiously calls your attention.

To properly examine the mouth and throat sometimes requires considerable manœuvring on the part of the physician. It is best not to approach the child hastily with a formidable spatula or tongue depressor, either of which in many instances is forcibly objected to by adults; nor need we use a spoon, but by inserting the little finger into the mouth of the child, as though examining the teeth or gums, and passing it back slowly, we cause the infant to gag, and as it does we obtain a full view of the fauces.

We may find the tongue redder or paler than natural, clean or covered with white or yellow spots, or ulcerated. In eruptive fevers the mouth and fauces are usually congested, and this would lead to the anticipation of what is approaching. In scarlatina the follicles of the tongue are greatly enlarged, giving it a strawberry-like appearance.

A foul odor may come from ulceration of the mouth, cheeks or fauces, as in diphtheria, cancrum oris, etc.

Vomiting is so common in early childhood that it is apt to be disregarded. By itself it is rarely a symptom of value. The child overfeeds, and ejects the surplus, generally unchanged. If the ejection is delayed, partial digestion is shown by the change in the food. Sourness shows excess of acid in the stomach, etc. But in certain affections vomiting is a primary and significant symptom. Scarlatina is frequently ushered in by profuse emesis. In brain disease it is a usual symptom. It is constantly present in indigestion, cholera infantum, is apt to occur in obstinate constipation, and especially in severe bowel troubles of any kind. We must not forget, however, that it frequently accompanies the paroxysms of whooping cough, and also in acute bronchitis.

Free discharges from the bowels must be judged by accompanying circumstances, as their number, quantity, color, presence of blood, condition, consistence, smell, etc. Too much care cannot be shown in this regard. The inspection of the stools should form a part of the duty at each visit. The nurse

should be ordered to reserve each diaper until the next was removed, or, in fact, several, for inspection at each opportunity by the physician. When practicable, it is well to observe the conduct of the child while in the act of defecation. We may then judge as to pain, tenesmus, or griping, and often thus have invaluable aid in our diagnosis.

The presence of intestinal parasites is thus made known, and the indefinite disease called "worms" is resolved into classes, according as there are seat worms, the long round worm, or tape-worms, etc.

The urine, too, is thus inspected, or its absence, as in some rare cases, is at once detected.

An examination of a child, especially in cases of doubt, should be complete, and performed with care. It should be inspected while divested of its clothing, and perhaps the process of elimination will prove of equal if not greater value than in adult cases. The physician is thus enabled to remove from his thoughts certain portions of the system, and concentrate his investigation more fully upon the remainder, with a greater surety of eventually detecting the seat of disease and its cause. Much advantage is gained by an examination during sleep, for rarely does it occur that a child is not more or less excited by any movements to which it is unaccustomed, especially if the presence of one with whom it is not familiar arouses its suspicion. During sleep the attitude is more natural, and then, when the child awakes, the proper comparison may be made with its movements, as influenced by its malady. During sleep we may have twitching, starting, moaning, changes of facial expression, grinding of the teeth, labored respiration.

Its mode of sleep, or the absence of this restorative, so important to all, but especially to the child, is a point that must be carefully noted.

When necessary, by reason of difficulty in diagnosis, the child must be examined after the removal of the clothing.

The importance of this is shown by the quickness with which the practiced mother searches for the hidden cause of the uneasiness of her child. Again and again do we find the child screaming as in great agony, refusing to be pacified. The mother carefully removes its clothing, and soon reveals a pin whose point is driven into its tender flesh at every movement. It is truly marvellous that we so often find a young mother utterly powerless to compose her infant to rest, and yet with so little common sense as to fail to look in the right place for the cause of its distress. I am afraid, gentlemen, that you would believe me to be drawing largely upon my imagination, were I to detail to you even a tithe of the incidents of this kind which I have encountered. Fancy a nurse so careless as to drive the pin which holds the diaper in place clear through the prepuce and yet be so void of understanding as to fail to discover and remove the cause of injury until the trouble was detected by the physician called under the belief that the child was about to be attacked by convulsions.

I could mention several remarkable cases, but will let one suffice, and ask you to ponder its teachings that when you go forth as men to be trusted

with the care of these little ones, that you may be enabled to serve the cause of humanity.

A lady with two children, had one taken suddenly and dangerously ill. It was a case of meningeal fever. The younger child, a mere infant, was entrusted solely to the care of a colored nurse. When the elder child began to evince signs of the departure of the disease, my attention was directed to the baby, by its mother, who informed me that it had for a week or more been cross and complaining, which she attributed to its desire to be with her and its sister. I found the child without any apparent disease, but peevish, irritable and screaming at the slightest movement. I requested its nurse to remove its clothing. Nothing was discovered until she was about to remove one of its socks, when the screams of the child became heartrending. For the moment I concluded that there must be rheumatism of that limb, but almost immediately the mystery was explained. I found a thread of the worsted sock had gotten twisted around the little toe close to its root and had cut through to the bone, so that the toe appeared about to drop off. The nurse then confessed that she had not completely undressed her purling during the whole time it had been in her care.

At the risk of being tedious I must refer to a more recent and peculiar case. A lady brought me her child, which she said was in apparently good health, but would scream at the slightest movement. Finding no symptoms of disease I had the child undressed, when I speedily detected a partial fracture of the right femur. As the child had not been known to receive an injury, and it had commenced to scream suddenly in the midst of apparent healthful play, I regarded the accident as due to muscular contraction.

The inquiry to be complete must be extended equally to the food of the child. Particularly is this necessary where the infant is being fed artificially. But even where it is obtaining its supply from the maternal fount, there often exist causes of disease that might be overlooked. Thus, the mother is failing in health, is again pregnant, is again menstruating, or for any cause is losing her milk. Any one of these would materially affect the child. It requires an abundant amount of nourishment to enable it to grow as it should. It begins to fret, its bowels are irregular, it loses color, strength and flesh. An examination of the mother's milk reveals a diminution either in quantity or quality, or both. As to its nutritive power, the microscope often becomes necessary in order to test the absence of the requisite matters.

Where the function of menstruation has commenced the mother's milk is generally deficient in those ingredients requisite to enable the child to form bone, and hence it becomes rachitic; it is slower in attempting to stand alone or to walk; its abdomen projects, that is it becomes pot-bellied, the navel projects, the spinal column really shortens, producing compression of the lungs and surrounding viscera.

When children are hand-fed, all these results are more especially likely to result. For want of proper care, often in the absence of any information on the subject, the artificial food is very frequently prepared and administered in such a way as to almost wholly fail of value. Thus, in one notable instance

the mother could in no way account for her child's constant cries, as though hungry, its loss of flesh, its watery discharges from the bowels; until her physician learned that she was giving it cow's milk two-thirds diluted with water. The subject of infant food is so prolific that it demands for its consideration a special lecture, hence we shall but briefly comment upon it here. Never neglect to investigate the alimentation in a case which appears doubtful, and you will generally find a clue to the mystery by which it will soon be unravelled and you will thus be enabled to put the little one quickly on the high road to health.

Another point will be the surroundings of the child. Its place of abode, the ventilation, the cleanliness, the habits, even the employments of those with whom it most constantly is brought in contact. These points more especially need examination when we see a doubtful case at a hospital or away from its own home. Light and air, next to food, are of infinite value to the growing child. Nearly all our cases of chronic disease come from the courts and alleys of our overgrown cities. Places unfit to be the abodes of beasts, let alone of human beings. Homes where the sunlight scarcely, if at all, can penetrate; rooms darkened by the towering piles of bricks and mortar which shut them in; ventilated almost solely by the accidental breakage of a window; cleansed at rare intervals, and in such a way as merely to stir up and render volatile the filth which before was lying concealed, and perhaps less noxious. Outside, we find the ash-heap which is made the receptacle for slops as well; near at hand the well, giving forth a constant supply of deadly odors, perhaps to aid it a pig-pen close at hand, with its offal and slops, gathered and hoarded till fermentation has commenced. Add to this the atmosphere filled with the fumes of rum and tobacco, can you wonder that the child is puny, is feeble, sleeps heavily, grows up with a terrible struggle against each form of disease to which childhood is liable, and finally should it reach adult age becomes a mere animal with brutal instincts, ready to wage war with society, with law, with order, with decency, in short knowing nothing and caring nothing for a better life!

In summing up symptoms we must be careful to give to each its true value. Perhaps on this point I cannot do better than quote from the learned work of Bouchut on the Diseases of the New Born:

He says, "In early childhood there is no relation between the intensity of the symptoms and the material lesion. The most severe fever with restlessness, screams, and spasmodic motions may disappear in twenty-four hours and leave no trace behind."

Another point to be considered will be the previous medication. This may seem a strange proposition, but you will readily appreciate its importance when you encounter the drugged infants so common to our large cities. First, we may allude to the domestic medication so commonly employed prior to the summoning of aid. Rarely has the mother failed to give a full dose of some purgative, often resulting in positive injury, generally more or less masking the original symptoms. Next will come a hot tea generally of catnip, sweet marjoram, &c., with which the unfortunate is drenched till its stom-

ach loathes everything. When such things are made known to the physician, the proper plan will be for him to gain time in any way until the system has recovered from these dosings, when he may meet the symptoms with some ability to appreciate their meaning.

The almost universal employment of some form of soothing potion materially changes the value of symptoms, and equally so the value of our remedial agents. All of these contain some kind of narcotic, generally a preparation of opium, and hence are positively injurious to the child. Unfortunately, in the vast number of cases, the mother does not care to inform the physician of her conduct in this particular, but stops this dosing while the child is in his charge, and thus produces additional injury in the case. I knew of one instance where a mother had gotten up to a powerful dose of a common soothing medicine, on the plea that the child would not rest without it, and when it was taken ill she quietly stopped the medicine without informing her physician. All his remedies, much to his surprise, failed of their proper effect, and it was only when I was called in consultation that she acknowledged her miserable folly, but too late to afford the child a chance for its life.

Therefore, always endeavor to learn whether such have been used, and to what extent, and at the same time ascertain as to other medication, before you form your opinion or express it.

I would caution you, gentlemen, as to avoiding extremes of hope or despair. While never too sanguine in critical cases, do not too readily abandon your efforts. The common saying, "While there's life there's hope" certainly is a truism in childhood. Even at the last a favorable change will occur, and the child will rapidly be restored to its former health.

On the other hand, do not be deceived by an apparent cessation of the disease. We frequently see just before death a sudden change, as though for the better. This is particularly the case in brain affections. The coma disappears, the child becomes conscious, it recognizes those around, their hopes are revived, only, alas, to be again cruelly dashed down by the accession of death.

In the course of these lectures I shall endeavor to indicate to you as plainly as I may, the special symptoms of each disease, the differential diagnosis and the most recent and successful methods of treatment. Being satisfied that if you thoroughly acquire these points and carefully follow them in your practice, you will be better prepared to aid in solving the great problem of lessening the mortality among infants, which, though vastly decreased in comparison with by-gone years, still reaches to figures which are appalling to all save the followers of Malthus.

ORIGINAL ARTICLES.

A FEW WORDS WITH WM. HUNT, M.D., ON A-SYMMETRY OF BONES,

BY
J. S. WIGHT, M.D.
Brooklyn, N. Y.

In February, 1877, I published in the *Archives of*

Clinical Surgery, New York, a lecture on *Shortening of the Lower Limbs after Fracture of the Femur*. In that lecture appears the following sentence, viz.: *After many years, in which there has been much discussion, and some contention about the broken os femoris, it has occurred to me to measure the lower limbs of those who have never had the femur broken.* The cause of my measuring sound lower limbs, may be found in the two following facts, namely.

1. In the Spring of 1874, after the treatment of a fracture of the left femur in a healthy adult, the left lower limb was an inch shorter than the right lower limb. In the words of the consulting board, there was an implied censure for such a result. I felt this deeply at the time, and on thinking the subject over, I came to the conclusion that *interstitial absorption, or original shortness* might have been the cause of the shorter left lower limb. I measured some healthy lower limbs and found a non-symmetry in a few cases. Press of occupation then prevented me from completing any systematic investigation.

2. Toward the close of the year 1875 I was one of the experts in a case of fracture of the clavicle, for whose results Dr. Geo. K. Smith, of this city, had been charged with mal-practice. At that time I testified in court that the united clavicle was shorter than the clavicle on the opposite side; that the united clavicle, before it had been broken, was shorter than its corresponding bone, and that the result of the treatment was very excellent, since there was probably little or no shortening during the treatment. At that time I enunciated the great fact of the quite common condition of asymmetry of bones of the two sides of the body.

In the meantime I continued my measurements and observations, which were delivered in the form of a lecture in 1876, and this lecture was published, as above stated, in the next year, 1877. After my MSS. had been sent to Dr. E. J. Bermingham, the editor of *The Archives of Clinical Surgery*, he drew my attention to the paper of Dr. W. C. Cox, in the *American Journal of the Medical Sciences*, April, 1875, saying that the work of Dr. Cox "substantiated" my views. Not having the original at hand, I hastily wrote a summary of the paper of Dr. Cox, in which I said—*It will be seen that my investigations "substantiate" those of Dr. W. C. Cox.* For this summary I am indebted to Dr. E. J. Bermingham. I sent the summary to the editor to use as a footnote, as my paper had already been written.

Soon after the appearance of my first paper I received a copy of *The Philadelphia Medical Times* for January 16, 1875, sent to me, presumably by Wm. Hunt, M. D., as that paper contains an article from his pen: The article was marked by pencil. From this article I take the following words, namely, "Dr. Cox, formerly resident of the hospital, and Dr. Morton's assistant, noticed these discrepancies [normal asymmetry] and measured both sides of a large number of persons who had never received any injury whatever to their lower extremities, taking his points of departure from the various positions on the trunk above indicated. I have his [Dr. Cox] full permission to state that the differences between the two sides ranged from seven-eighths of an inch to nothing, and that the latter result was exceptional.

The doctor has also the data as to right and left, and the result will soon be published." These are the words of Dr. Wm. Hunt. I shall refer to them by and by.

Subsequently my conclusions were questioned by so great an authority as Prof. F. H. Hamilton, M. D. The influence of this great name made it incumbent on me to defend what I felt to be the truth. Should I make the defense alone? Yes, why not, when my work had been the objective of criticism: If the contest be won others may have part of the approbation: *but if the contest be lost, then I alone will be hurt.* And so matters would have stood. • All the surgical world knows the result:— And I have no doubt that the spontaneous and generous letter of Prof. Hamilton to me has been read ten times, where my article containing it has been read but once. *In that letter Prof. Hamilton speaks of the work of Dr. W. C. Cox.*

Now what was the work of Dr. Cox? I can best state in the language of the foot-note to my first paper. "*Dr. W. C. Cox a few years ago accurately measured the normal lower limbs of fifty-four cases, and found only six whose lower limbs were of equal length; the rest varied in length; the smallest difference was one-eighth of an inch, and the greatest difference in length was seven-eighths of an inch; while fifteen cases showed a difference of half an inch or more. It will be seen that my investigations substantiate those of Dr. W. C. Cox.*"

Says Dr. Cox in his paper "The results in some of these cases [fractures of the lower extremities] being very remarkable, and having noticed that the pantaloons leg on one side became worn much sooner than that of the opposite side, it occurred to me that perhaps there might be a difference in the lengths of the opposite lower limbs in persons who had never received any injury to that part of the body. I proceeded to measure a number of such persons, and found while in some the length of their limbs was equal, in others it varied from $\frac{1}{8}$ th to $\frac{7}{8}$ th of an inch."

In this connection I may say that the first time I saw the article of Dr. W. C. Cox, was on the 28th March, 1879. On this day I borrowed of Dr. McClellan, my neighbor, the journal containing the article of Dr. W. C. Cox, my object being to make a reply to an article in the January number of *The American Journal of the Medical Sciences*. This article was written by Wm. Hunt, M.D., and from it we learn that:—

1. Dr. D. Hayes Agnew and Dr. Wm. Hunt testified as experts in a suit for malpractice against Dr. Strickler, who had treated a fracture of the thigh of a boy eight years of age.

2. "Thus ended the first trial for malpractice, in which the new facts as to measurements were brought with great effect before a legal tribunal." This was "on the 12th and 13th April, 1878."

3. Dr. Hunt says that during the past two years the credit of this important discovery has always been given to Dr. Wight, of Brooklyn.

4. Dr. Hunt claims priority in the *discovery and full surgical appreciation of the fact that asymmetry as to length of the lower limbs of the same person is the rule, and not the exception.* The italics are in Dr. Hunt's paper.

5. Says Dr. Hunt,—“After this paper [that of Dr. W. C. Cox] was published, our interest in the matter did not cease. I frequently made the remark that the publication of it did not attract nearly the attention that it deserved from the profession.”

6. Says Dr. Hunt. “Dr. Wight speaks of it as substantiating his own observations, but does not allude to it in the body of either of his articles.”

7. Says Dr. Hunt :—Dr. Wight’s sources of information must have been meagre in giving about 900 cases of fracture of the lower extremities as occurring in the Pennsylvania Hospital—in a period of 123 years.

In reply to these six counts I may say as follows :

1. Dr. Wight testified as an expert on the 18th, Nov., 1875 in a suit for malpractice, where the length of the clavicle was in question.

2. At that time Dr. Wight applied for the first time before a legal tribunal the important principle of the common asymmetry of normal human bones: It happened to be the clavicle, and not the femur.

3. I. Dr. Wight has been able to impress single-handed great scientific and practical facts upon the attention of the profession and others, he certainly ought not on that account to be blamed.

4. Suppose Dr. W. C. Cox had not given Dr. Hunt permission to state the results of his (Dr. Cox) investigations a few weeks before the publication of said investigations—his (Dr. W. Hunt) statements would have been mere guesses, and have had no scientific value. If any priority is due it belongs to Dr. Cox. The rights of Dr. Cox have been fully recognized by me. As I have already said : The letter of Prof. Hamilton published in my second paper will be read by every body. And this letter speaks of the claims of Dr. Cox.

5. After Dr. Wight published his papers on the asymmetry of the lower limbs this subject did attract the attention it deserved from the profession and others.

6. My first paper was in the hands of the printer: I sent a foot-note, not having time to consult the original of Dr. Cox. I have recently borrowed it and the paper of Dr. Hunt, for the purpose of making this reply. Dr. Wight alludes to the work of Dr. Cox—by means of the letter of Prof. Hamilton—just before his conclusions, in the most conspicuous part of his second article, which was published in the proceedings of the Medical Society of the County of Kings.

7. My meagre sources of information in regard to the Pennsylvania Hospital “was” Holmes’ System of Surgery, vol. II., page 842. That point must be settled by Dr. Hunt with Prof. Holmes and his co-workers. My object was to show how rarely a surgeon would meet with an elongated lower limb after treatment of fracture of the femur.

Finally, my first paper was in the main written with a view to the medico-legal bearings of the question of asymmetry of human bones; and my second paper was written in the defence of the facts and principles involved in my first paper. In my two papers I have put on record *new matter* of importance for the first time definitely formulating the medico-legal bearings of the asymmetry of human bones, while, so long ago as the year 1875, I enunciated the same principle, while testifying as an ex-

pert in a court of justice in the city of Brooklyn.

HOSPITAL RECORDS.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

SERVICE OF J. M. DA COSTA, M. D.

(Reported for THE HOSPITAL GAZETTE.)

GENERAL ARTERITIS—FORMATION OF A SMALL CUMY TUMOR, FOLLOWING LONG STANDING SYPHILITIC DISEASE—SUDDEN APOPLECTIC SEIZURE—CLOT.

H. T., 36 years of age; a butcher by trade; admitted to the hospital on December 30th, 1878. Fifteen years ago he contracted primary syphilis, and shortly afterwards secondary symptoms appeared, such as falling of the hair, eruptions on the skin, and sore throat. Three or four months previous to his admission he was attacked with severe pain in the left side of his head. The pain was so violent as to confine him to bed and required the use of chloral. This pain was relieved in two days, however, and the man was then able to return to his work.

He said that he had had several headaches every other day, at least for some weeks before his admission to the hospital, and occasionally he was giddy, but he never fell. There was no loss of flesh and no disturbance of eyesight. On December 29th, the day before admission, while he was engaged in tying his cravat, being apparently in perfect health, he had a marked attack of dizziness, together with complete loss of power in the left arm and leg, causing him to fall suddenly to the floor. He was not altogether unconscious when he fell, but his mind was very much confused. Almost immediately after the dizziness left him he experienced some difficulty of speech, together with severe pain in the right frontal region. This attack was not preceded by headache.

The patient never had inflammatory rheumatism, heart disease, or albuminuria. A number of years before his admission, however, he had syphilitic pains in his legs.

When he was brought into the hospital there was complete loss of power on the left side of the body, together with loss of expression on the left side of the face, and he was entirely unable to rotate the left eyeball. The pupils, both of them, responded to light. The patient’s mind was dull and he spoke only with an effort. There was, however, no loss of words. He could not protrude his tongue far from his mouth. He was very drowsy, but could not sleep on account of severe pain in the right supra-orbital region. It was hard to ascertain whether there was loss of sensation on account of the dull condition of the patient’s mind. Reflex excitability was well preserved. The heart was acting strongly. The attack had brought on temporary albuminuria. The albumen disappeared from the urine, however, soon after the patient came into the hospital. It was evidently a consequence rather than a cause of the attack, as the man never had any previous organic disease of the kidneys.

The patient improved very rapidly after his admission to the hospital. Ten days after admission he was able to lift up his left arm, although he could not move it upon the date of admission. He gained some decided firmness of grasp within two weeks after admission. In power of motion the left leg was only slightly inferior to the right at that time. Sensation was very perfect. The eyes were examined with the ophthalmoscope and some slight optic neuritis was found in the left side.

The treatment immediately after admission consisted in free purgation with croton oil and in the frequent application of blisters to the back of the neck. Ten grains of the iodide of potassium were given every three hours from the first. The recovery was so rapid that it was hard to believe in the previous history.

Dr. Da Costa brought the man before the class late in January. The facial palsy was still present to some extent, showing that the original lesion had not entirely disappeared. The return of power was not quite complete. In answering the questions—What is the matter? Why has the recovery been so rapid? and what will be the future results of the case? Professor Da Costa was led to remark that the first thing which had occurred was evidently the formation of a clot in one of the motor ganglia, probably in the right corpus striatum. The clot he thought was one of moderate size. Nothing could explain the symptoms but the formation of an apoplectic clot or the occurrence of embolism. In the absence of heart disease and of other common causes of embolism he had fixed upon apoplectic clot as the undoubted cause of the palsy. The suddenness of the attack was greatly in favor of this explanation. So too with regard to the rapid recovery. An apoplectic clot is very likely to be rapidly absorbed, more rapidly absorbed in fact than an embolic stoppage of the capillary circulation.

That the clot was small was proven by the partial loss of consciousness. If the clot were large the loss of consciousness would have been complete. The motor paralysis with absence of any paralysis of sensation was a strong point in favor of his belief, that the clot was in a motor ganglion only. He thought that the pain in the right side of the head went hand in hand with the supposed seat of the lesion.

As to whether all the symptoms were the result of the clot alone, or was there something behind it all, Dr. Da Costa thought that there was something else behind and believed that the presence of the optic neuritis enabled him to speak more positively. The man probably had organic syphilitic brain disease. This syphilitic brain disease had probably consisted in degeneration of the cerebral arteries, a very frequent result of syphilitic disease of long standing. This opinion was greatly confirmed by the vertiginous attacks.

With regard to the optic neuritis and persistent headache Professor Da Costa was of the opinion that these symptoms could not be explained by the clot, or syphilitic arteritis, but must be caused [probably] by a gummy tumor of small size. Headache is more frequently a result of gummy tumor than of meningitis.

The regular treatment, he thought, had acted ad-

mirably. The iodide of potassium ought to be continued so as to radically modify the cerebral exudation of syphilitic origin.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JNO. A. WYETH, M.D.

BRADLEY.—INTESTINAL OBSTRUCTIONS.—ABDOMINAL SECTION.—DEATH.

Patient male, æt 45. Two days before operation sudden pain in lower portion of abdomen, followed by vomiting, obstipation and distension. No tumor recognizable; pain referred to region of umbilicus. Left testicle wanting. Just beneath the left external abdominal ring a small and resisting swelling was discovered. Four days after admission stercoraceous vomiting. An explorative incision was made down upon the left inguinal canal, but as this was found to be empty, no further operation was made, as the stercoraceous vomiting continued on the following day, the abdominal section was practiced. After prolonged searching, a muscle of small intestine was found strangulated in the right inguinal canal. This returned on slight traction— $\frac{3}{4}$ of the entire circumference of the gut was caught in the canal. Patient died in the evening. Autopsy showed recent peritonitis. B. regretted that the operation had been so long postponed. The tumor in the left inguinal canal was the remnant of the misplaced testicle.—*Centralblatt für Chir.*, Jan. 18, 1879, p. 47.

CRIPPS ACUTE INTESTINAL OBSTRUCTION—ABDOMINAL SECTION—DEATH.

Patient male, æt. 17. Five months previous had received a heavy blow in the abdomen. Five days before entering hospital severe pain in iliac fossa. Next day f. stercoraceous vomiting. Abdomen tense. Injection of water, and inversion of the body did not relieve obstruction. Opium induced quiet for twenty-four hours after which former symptoms recurred. Operation—Lower end of small intestine was strangulated by a fibrous band which bound it down upon the peritoneum over the psoas muscle. Strangulation relieved by section of this bond. Wound closed—Vomiting did not recur. For few days patient did well when fatal diarrhœa set in. Pain in abdomen did not return after operation. C. regretted that he did not operate twenty-four hours sooner.—*Centralblatt für Chir.* Jan. 18, 1879, p. 47.

NEW OPERATION FOR PHIMOSIS—M. JULES HUE.

A needle threaded with an elastic is pushed upon a grooved director between the glans penis and prepuce, on the dorsal surface back to the peno-preputial junction, where the needle transfixes the skin. One end of the thread is brought out here. The two ends are then tied in a knot along the median line drawn sufficiently tight to cut off the circulation. The ligature cuts its way out in 10 to 14 days. This operation avoids the cutting, stitching, and hemorrhage of the older operation.—*Ibid.*, p. 51.

THE HOSPITAL GAZETTE.


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EDWARD J. BIRMINGHAM, A.M. M.D. *Editors.*
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EDITORIAL.

DOCTORS' FEES.

The great law of supply and demand, that prevails during six days of each week, so generally in the world of traffic, has no force with the medical fraternity. The iron rod that drives the many, whose means are limited, from the enjoyment of comforts and blessings, simply because they are much sought, is too rude an instrument for physicians' use. Its purpose is entirely at variance with his purpose. That law, the almost universal dictator of price, was born of selfishness, recognizes only Opportunity as its god, and greed as its handmaid. No thought beyond self inspires its working, and if ever better feelings are awakened by it, they are of sorrow rather than sympathy, and of *repentance* rather than *hope*. Such a law has no power with a profession whose only mission is to relieve, to soothe, and to overcome other's woes, and never will measure the rewards for such efforts. That profession demands a rule that will be fully applicable on the remaining day of the week, a seven-day rule. It is not our purpose to state in so many words that there is a direct wrong involved in mercantile transactions, as the sale of coal at the Fahrenheit zero price, or the sale of flour at poor harvest prices. "Necessity, other people, and supply" eliminate the seeming wrong, so far at least as the seller's conscience is concerned. They do not, however, quiet a single cry of hunger, nor warm a single chilled body, much less a heart; therefore are valueless as medicine, and useless to the physician.

The world has never as yet been called upon to witness the humiliating spectacle of the fraternity demanding increased remuneration in cases of epidemic or plague.

Such would be the legitimate outgrowth of this commercial practice. It has ever seen that the first to offer of their own to sufferers in those days were the doctors, who not content with the risk of health and life, sacrificed their hard earned savings, promptly and generously. If ever one has failed in duty, faltered in fear of death, or worse still, acted like a vulture at a carrion feast, his name and fame have been dropped into an obscurity, time has ailed, and will fail to penetrate. How grateful we

should be that the world decides that physicians and ministers are not good business men.

What considerations then shall determine professional fees, since, thus far, the general trade has failed to control them? We recognize the fact that the laity feel themselves unfitted to dictate, and patients but seldom discuss items, and then often in a lamentably ignorant way, disclosing a purpose. The subject is entirely in the hands of practitioners, by general consent, and seems to be about to receive attention as it should. While for many reasons, it is evident that mathematical precision cannot be attained, a general standard can be reached, which will serve us as a guide. The sooner this is accomplished, the sooner will the profession relieve its members from embarrassments; stifling unfair competition among the experienced, and restraining the fanciful flights of importance of the tyro.

In the determination of fees, the first to be considered is the importance of the physician's services, and no words are needed to establish its character. It embraces all that conduces to the health, life, happiness, and prosperity of the human family. Whatever there is grand and ennobling in life, making existence desirable is the limit to the importance of the work of him, who, being prepared for his task, watches and preserves us in health, and cares for and restores us when stricken with disease. This being so, it would almost seem to follow that as the continued existence is the triumph of medical skill, the possessor of that skill takes rank just below Divinity, before whose superior power and guidance, such always bow. As a question of abstract right, the physician becomes entitled to the greater share of his preserved patients' accumulations, but his claim has not been asserted, therefore it is but slightly acknowledged. A wretched creature in mid-ocean, with the last hope of rescue expiring in his breast, closing his eyes in despair—catching the faintest whisper of approaching succor from a hidden source—knows the debt he has incurred when he finds himself saved. The wasted frame, that has been the home of disease for long and weary months, recalled to strength at what had been thought to be about to be the last possible moment of endurance, can measure the reward to the perserver. Proud kings have fallen, offering their kingdoms, to be spared but for a brief time. Whoever has approached the verge of dissolution can give a wonderfully eloquent estimate of the importance of the physician's task; one that money can faintly represent.

Since so extraordinary a demand can be forcibly made in behalf of the profession, but little need be added in furtherance, although much can be said, as due from the careful preparation for its arduous labors. Years of earnest study are requisite for an insight into the elementary principles of the sciences underlying the art; years are passed in acquiring habits of observation and discrimination, and the work proper that brings the first remuneration, begins only when the mind has been thoroughly tutored and the hand steadied. The material in which he works is too delicate, the stake for which he strives too precious, to permit experiment. The treasured precepts of wisdom must be made a part of himself, before the first effort is tolerated.

This does not end the days of preparation, nor do they end, except for each, as he passes away.

A physician cannot afford to pass a single day without making an effort to advance. His daily duties reveal his ignorance, and continual study, study, study, fills every waking moment. Well may we say that such ceaseless toil deserves adequate recompense.

Through other avenues than the immediate attention to the medical wants, does the physician bestow blessings, that are priceless. He can reprove the wicked with tender words that win their way to the heart, when the same words from others would arouse feelings of anger. He has a magic power in look and gesture that dispels clouds of depression; and, having been faithful, but not all-powerful, his words are soothing to the afflicted.

Viewed in whatever light, his purpose is high and noble, therefore his reward should be liberal in money, as in gratitude.

History records some generous recognitions of medical skill; some later instances, now recalled are particularly bright spots. Well defined report fixes ten thousand dollars as the willing fee to Drs. Parker and Stimson for removing a fibroid recurrent tumor from the neck in two consecutive operations. Dr. Frank H. Hamilton is credited with having received seven thousand dollars for an amputation of the leg. Dr. L. A. Sayre is reported to have been awarded five thousand dollars for excision of hip, Dr. W. A. Hammond five thousand dollars for aspirating an hepatic abscess, Dr. W. T. Detmold three thousand dollars for tenotomy, and Dr. Theband twenty-five hundred dollars for a successful lithotomy.

These handsome renumeration to eminent practitioners, remembered now because of their recent occurrence, indicate the popular esteem in which our profession is held, but they do not compare favorably in amount, or in frequency to the fees awarded to the legal profession. Charles O'Connor, it is generally admitted, received ten thousand dollars for the examination of a mortgage; W. M. Evarts would hesitate to start his goose quill on one of its meanderings, in the expression of his conviction as to a question of lawful responsibility, carefully limiting the same in its application with copious subordinate and dependent clauses, amplifying features that are particularly favorable to his client, effectually concealing matter of other tendency, and so forth, *ad infinitum*, without a solid assurance of becoming the recipient of a well rounded check. The daily journals surmise that Scott Lord, and Henry Clinton, the opposing chief counsel in the late Vanderbilt will contest, each charged his client a princely fortune for his service; one hundred thousand dollars was the smallest sum mentioned. Scarcely a day passes that mention is not made of handsome rewards being given for legal effort, and public satisfaction is expressed that skill is properly rewarded. We certainly neither object, nor envy, but we contrast the magnitude and grandeur of our work with that of theirs, and we have reason to say that we should be entitled to the greater compensation.

We are convinced that the more eminent members of the medical profession are inclining to the demanding of more equitable, therefore greatly increas-

ed fees, not from any selfish consideration, but for the elevation and protection of the profession, ultimately resulting in general good. The prudery of former days is giving way now, that its dangerous tendency is revealed in sad results, imposture and incompetency thrusting themselves forward. Self appreciation is the standard of payment that the world recognizes, when giving out its dollars, and that standard expressed in dollars measures the permanent respect that is shown. We know that gratitude, a heavenly reward, is always the patient's tribute to us, but heavenly rewards are not current in the marts, and gratitude grows beautifully less, as time gives strength, and active business engages our former patients.

When acknowledged ability adopts a measure of reward for service, founded upon a conscious knowledge of its justness, adheres firmly to that standard, then starts a growing appreciation in the minds of others, and a more thorough devotion of all the energies to that service, and a firmer resolution for accomplishing greater deeds among its workers. Our profession, feeling the injustice of bearing the odium of the performances of impostors and incompetents, are designing means that will enforce due respect at all times, not alone when diseased, and better pay. With the enforcements of such measures, as a legitimate sequence will be the drawing of a well defined mark by the laity about the profession, within which none unless fitted can venture, and live. So long, however, as such measures are not enforced, these creatures, whose prominent attribute is not modesty, will hang about the profession, and by their pretence work injury to it, and ruin to the general public. We had almost said that the delay invited them.

While engaged in considering the question of fees, it is important that we admit that we are well aware that some very able members of the profession have, from humane motives in some instances, been accustomed to charge very insignificant fees. While we honor them for their skill, are proud of their self-sacrificing devotion, we know that their zeal has outrun their judgment in this manner, and they have done serious damage to the fraternity, as well as aided in further impoverishing the very ones whom they thought to benefit, the poor. They have unwittingly tempted the frauds to enter into practice, a result of all cheapening efforts, and the poor, generally, more or less ignorant, furnish their harvest. The same zeal and self-sacrifice in encouraging and making popular regularly organized charities would surely secure the good design and defeat the imposition. Cheap doctors, though skilled, are a curse to the poor and to the profession. The nature of our work makes it imperative that the young members should be in constant contact with their seniors, and have respect for them, but when those seniors make their path unnecessarily thorny and tedious, the human nature of the young physician asserts itself, and his expressions of respect are tempered with mental reservation. Nothing contributes more to the making of the path difficult than for older physicians—their age making them more acceptable to patients—from sordid or humane pretence—to solicit practice by advertising themselves through the cheap dodge. The young

members have their rights as well as duties; have claims upon, as well as responsibilities to the older members. One of these claims, in the interest of the profession, is that the older members should give them solid encouragement. Patting upon the head is a good thing, but must not be continued for too long a period, or in too forcible a manner. Less patting, more introductions among families, with words of commendation within ear-shot of the public, will develop a better quality of respect, a more lasting one, as well as give the young members a chance to grow to full stature as men, rather than appear as starvelings, and induce more earnest efforts to excel in their labor.

Good fees will work out the accomplishment of good results. Poor fees have worked injury.

SELECTIONS FROM JOURNALS.

THE EXCRETION OF PHOSPHORIC ACID IN MAN AND ANIMALS.

In Heft 3, Band 14, of the *Zeitschrift für Biologie*, Dr. Julius Bertram gives the results of numerous and careful experiments he has made upon the excretion of phosphoric acid, especially in herbivora, but also in man. He finds that when the herbivora are fed on their ordinary food the phosphoric acid set free in the metabolic process of the body is excreted, not by the kidneys, but in the fæces. If to their ordinary food be added large doses of acid phosphate of potash ($\text{POO}_3, \text{K}_2\text{H}$), phosphoric acid appears in the urine, and may rise to a considerable amount. Under these circumstances the phosphoric acid makes its first appearance in the urine when the lime ingested with the food is insufficient to combine with it. Hence it follows that lime is deficient in urine containing an excess of phosphoric acid, and also that the addition of large quantities of lime salts causes the disappearance of phosphoric acid in the urine. Phosphoric acid cannot appear besides or with lime in the alkaline urine of herbivora, whilst, on the other hand the presence of magnesia does not interfere with its appearance in the urine. The cause of this difference of behavior lies in the fact that carbonated alkaline fluids possess no power of dissolving carbonate of lime, but easily dissolve phosphate of lime. The deficiency of phosphoric acid in the urine of herbivora is conditioned by the large amount of lime and alkaline salts of organic acids contained in plants. In man the administration of citrate of potash slightly diminishes the excretion of phosphoric acid in urine, and greatly reduces the excretion of lime. A further diminution occurs in the amount of phosphoric acid excreted if some carbonate of lime be administered in addition to the citrate of potash.—*Lancet*.

CHRONIC BLENNORRHOEAL INFLAMMATION OF THE MIDDLE EAR, AND DESTRUCTION OF THE MEMBRANA TYMPANI, FROM THE COMMON FLY.

This case is of so rare occurrence, that a short account of it may be sufficiently interesting to justify its publication. Alice N., aged twenty-seven, came to me on April 13th, 1878, complaining of deafness

in the left ear, with muco-purulent discharge and tinnitus. Nine years ago she felt a house-fly buzzing in her ear, which remained there a short time before it was dislodged. The following evening she complained of ear-ache, the result of which was that phlegmonous inflammation was set up and was allowed to proceed without radical measures being adopted. Shortly afterwards a discharge appeared, and on examination, the walls and inner end of the auditory passage were found spongy, red, and superficially abraded. It is presumed that the inflammation was phlegmonous, as she described its symptoms so accurately. On looking for the membrane, a quantity of yellowish discharge concealed it, which, on being washed out, disclosed, not merely a small pin-hole or chink to be discovered only by the aid of Politzer's bag, but a large ragged opening, and the handle of the malleus quite gone. Indeed, the other bones may be destroyed; but from symptoms that follow, there is reason to believe they are either ankylosed or adherent to the tympanic walls. She states that her hearing varies a good deal, and that she can often rectify it herself; an illustration of which she gave me by contorting the muscles of the face and lower jaw, very much as a horse does when he has difficulty in exercising deglutition with some article of food which he feels has been not properly masticated. By this means, I conclude, she restores the ossicles *in situ*, or nearly so, their ligaments not having been altogether destroyed by the ulceration—and her ailment resolved itself then into chronic suppurative catarrh of the middle ear. The whole auditory apparatus has been restored as far as compatible, and, as she has somewhat regained her hearing power, we may believe that the *stapes* is still there, and has been less influenced by the abnormalities than any other ossicle. The case, so far as I know, is unique, and no doubt the *meatus auditorius externus* or the *membrana tympani*, or both, have, in the first instance, been excited by the long and often pilose bristle attached to the third joint of the antennæ of the *musca domestica*. Robert Torrance, L.R.C.S. Edin., in *Brit. Med. Jour.*

CEREBRAL LOCALISATION.

A very interesting case of hemiplegia, combined with hemianæsthesia has of late been observed at the Hôpital Général in Paris. The patient had never shown any symptoms of either affection before; but one morning, in going up stairs, he fell and cut his head badly with a bottle which he was carrying. A very profuse hæmorrhage ensued, which was repeated later on; but there was no immediate symptom of paralysis. This affection only came on later in the day, beginning at the right arm, and invading during the following twenty-four hours the leg also. The whole side of the body became at the same time anæsthetic. At first, whilst the arm only was affected, the right leg presented distinct choriform movements, which vanished later, leaving the leg paralysed. The patient suffered from an attack of prehemiplegic chorea, accompanied by hemianæsthesia, which subsequently was transformed into hemiplegia and hemianæsthesia. These curious phenomena were to a certain extent explained by the *post mortem* appearances. A recent hæmorrhagic

focus was found in the corresponding hemisphere, occupying the extraventricular nucleus of the corpus striatum and the lenticulo-striate portion of the internal capsule. In the other hemisphere, an old focus was discovered which had destroyed the lenticular nucleus, the external capsule, and the outward wall, but had left the internal capsule untouched. It is not known whether this ancient focus had in times past given rise to a hemiplegia. For the last three years, the patient had never shown the smallest trace of one; so that, if he ever had had one, it must have been completely cured. Another remarkable fact was the curious symmetry between the foci. Similar symmetrical positions of hemorrhagic foci have been noticed before in other cases.—*Brit. Med. Jour.*

OBLITERATION OF VARICOSE VEINS.

M. Davat describes again in the *Bulletins de la Société de Chirurgie* (meeting of 11th September, 1878), the method employed by him for obtaining the permanent occlusion of varicose veins, and supports it with the record of seventy-three cases thus treated with one death. He ascribes the death in the fatal case to unnecessary and accidental puncture of the vein. The method is as follows: the point of a pin or needle is entered vertically through the skin close to the side of the vein, carried beneath it, and brought out through the skin on the opposite side of the vein at a point corresponding to that at which it entered. The pin is then raised so as to allow a second pin to be passed at right angles to and beneath the centre of the first, perforating the wall of the vein at four points. The operation is completed by placing a figure-of-8 suture rather tightly about the projecting ends of the pins. The pins should be removed after the fourth and before the seventh day. M. Davat prefers steel needles one inch long, one millimetre thick, flattened and slightly curved at the point.

The reporter has employed this method in one case with a good result, obtaining complete obliteration of the internal saphena vein in five days, without suppuration or the loss of a drop of blood, and with no more inconvenience to the patient than the slight pain of the puncture and the necessity of remaining in bed for a week.—*Archives of Medicine.*

MILK DIET IN CHRONIC CYSTITIS AND AFTER LITHOTRITY.

Dr. Teevan, acting upon Dr. George Johnson's method of an exclusively milk diet, has treated a patient suffering from chronic cystitis. After putting his alimentary canal into a fit and proper condition for commencing the treatment, the patient began to take a pint of milk every two hours; his urine thereupon became a mass of muco-pus, and pieces of curdled milk were vomited. At a later period more vomiting occurred, but the urine became quite clear and the patient was discharged, cured of his cystitis within a fortnight of the commencement of the treatment. Commenting on the above case, Dr. Teevan states, that apart from the probable cure by milk alone of chronic cystitis, which is an exceedingly troublesome and unsatisfactory complaint, there is yet another field open for it, as was pointed

out by Dr. Johnson, and that is the mitigation of the irritation which attends or follows the operation of lithotripsy. The influence of an exclusively milk diet on the urinary tract and secretion is well seen in cases of children suffering from incontinence of urine, who can often be cured by simply ordering them to eliminate meat from their dietary, and to live on milk only, if possible, or milk and fish, if existence on one aliment cannot be tolerated.—*The Lancet.*

AUSCULTATION OF THE SKIN FOR CHIRURGICAL PURPOSES—DERMATOPHONY. C. HUETER.

The author, having found that the vascular bruit of the pulp of the finger was clearly audible upon a microphone, constructed a cheap and efficient "dermatophone," by stretching a piece of gutta percha over the open end of a binocular stethoscope, (Vololini's, but Camman's might do). On placing this plate over certain vascular parts, such as the finger-tips, malar eminence, eyeball, etc., a peculiar sound, varying somewhat in pitch in different parts, is heard. This sound is the normal bruit of the subcutaneous capillaries and smaller vessels. If the hand be rendered bloodless by means of an Esmarch's band, the vascular bruit can no longer be heard in the finger-tips. In acute cutaneous inflammation, (furuncle, paronychia), a louder but deeper note is heard. In a case of partial stasis of blood in the foot, caused by a too tightly applied dressing for fracture of the thigh, the toes being dusky and cool, the vascular sound was weaker and hardly perceptible; but after loosening of the bandage, and a restoration of heat to the foot, it became louder, then normal. The instrument is also applicable to the muscles and tendons—myophony and tendophony. Applied to superficial bones while they are percussed (with a hammer or whalebone), according to Lücke's method, a distinct sound is heard. The author anticipates that these applications of auscultation will prove of help in medical and surgical diagnosis.—*Centralblatt f. die medicinsche Wissenschaften*, 1878, Nos. 51 and 52.—*Archives of Medicine.*

NERVE-STRETCHING IN TETANUS.

M. Thomas, of Tours, has forwarded to the Society of Surgery of Paris, at its sitting of February 19th, the report of the case of a man, aged 28, who wounded the ball of the thumb by falling on the fragment of a bottle. Some days afterwards, *tetanus* appeared, with *opisthotonos* and *trismus* very marked, difficulty in swallowing, and convulsive contraction of the flexors of the arm and hand, except the thumb. To destroy the effect of the inflammation of the ends of the nerves, and their compression by the cicatrix, M. Thomas practiced stretching of the median nerve at the level of the spot at which the humeral artery is usually tied under the biceps. The nerve was isolated and placed over a director and twice stretched. The patient felt himself immediately relieved. Two attacks of convulsions appeared afterwards in the course of the day, and then a third after two hours of sleep. The *trismus* and *opisthotonos* had disappeared that evening, and the patient was feeling well, when an attack of delirium occurred.

during which he leaped out of his bed and walked about the ward; death followed in the evening. The *post mortem* examination showed that the median nerve was congested at the level of the stretching; a rupture was found of the peripheral filaments of the nerve; the tendon of the long flexor of the thumb had been divided in the wound of the hand.—*Brit. Med. Jour.*

OBITUARY.

ISAAC HAYS, M.D.

Isaac Hays, M. D., who was born in Philadelphia, July 5, 1796, died on April 12th, at his residence in that city, on Locust street, near Fifteenth, aged eighty-three years. Dr. Hays was educated at the University of Pennsylvania, and graduated in the department of arts in 1816, and the department of medicine in 1820. He was the editor of the *American Journal of Medical Sciences*, which is still published in Philadelphia by Henry C. Lea. It was originally started in 1820 as the *Philadelphia Journal of the Medical and Physical Sciences*, and was edited by the late Professor Nathaniel Chapman. In 1826 Dr. Hays joined the editorial staff, and in 1827 it was converted into the *American Journal of the Medical Sciences*, of which he then became sole editor, and so remained until 1869, when his son, Dr. I. Minis Hays, was associated with him. The *American Medical Journal* is a quarterly, and is the leading medical periodical in the United States, and the only one whose complete files are to be found in all the medical libraries of the world. During all this long period of fifty-nine years the form and plan of the *American Medical Journal* has remained the same. It has been published by the house of Matthew Carey & Son and successors, and for over half a century has been under the same editorial control. At the time of his death Dr. Hays was one of the oldest living editors, having been connected with medical literature over fifty years. He was elected a member of the Academy of Natural Sciences of Philadelphia in 1818, and was its president from 1865 to 1869. He was an active member of the American Philosophical Society, and for a number of years a member of its council.

He was one of the founders of the Franklin Institute, and in early years its secretary, and at the time of his death he was the oldest living member on its rolls. He was one of the oldest members of the College of Physicians of Philadelphia, and for a number of years one of its censors. He was one of the founders of the American Medical Association, and author of its Code of Ethics, which has since been adopted by every State and county medical society in the Union. He was literary in his tastes, and possessed, probably, the largest private medical library in the country. He was a member of the Wistar Party Club, which was organized in 1818 to continue the weekly social gatherings inaugurated by the late Professor Caspar Wistar, of the University of Pennsylvania, and which did much to promote the reputation for hospitality which this city has always enjoyed. These weekly Saturday night gatherings continued uninterruptedly until the breaking out of the late war.

The association was composed wholly of members of the American Philosophical Society, and the in-

vised guests were mainly of the literary and scientific element of the city. Dr. Hays, beside his connection with the above mentioned societies, was also honorary member of numerous other societies, both at home and abroad. He was surgeon to Wills Eye Hospital from its organization in 1834 to about 1857.

Dr. Hays edited, with numerous additions, "Lawrence on the Eye," and was the author of many monographs on medical and scientific subjects. In 1828 he edited Wilson's "American Ornithology;" in 1846 Hablyn's "Dictionary of Medical Terms;" in 1848 Arnot's "Elements of Physics."

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list giving this week tonic mixtures. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital, Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital, B. H. (Bellevue Hospital, C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

30. *Elixir Cinchonæ et Ferri.*

R. Extr. Cinchonæ Fl.	fl. 3 1
Ferri et Ammonii Citr.	3 2
Spiritus Aurantii 1: 10)	fl. 3 1
Alcoholis	fl. 3 4
Ol. Cinnamomi.	M 15
Aquæ.	fl. 5 6
Syrupi q. s. ad.	fl. 3 16

With the oil of cinnamon and water make water of cinnamon; dissolve in this the ammonio-citrate of iron; add the spir. of orange and the fl. ext. of cinchona. Filter, and add enough syrup to make the product measure 1 pint. Dose: a teaspoonful.

Tinct. Ferri Chlor.	fl. 3 2
Aquæ.	fl. 3 2

31. *Lemon Tonic (C. H.)*

R. Cinchonæ Sulph.	grs. 30
Acidi Sulph. dil.	q. s.
Aquæ.	fl. 3 1
Acidi Citrici.	3 1/2
Syrupi.	fl. 3 1 1/2
Tinct. Ferri Chlor.	fl. 3 1/2
Aquæ q. s. ad.	fl. 3 4

32. *Or:*

Sol. Cinchon. Sulph. (30 grs. in fl. 3 1)	fl. 3 1
Acidi Citrici.	3 1/2
Syrupi.	fl. 3 1 1/2
Tinct. Ferri Chlor.	fl. 3 1/2
Aquæ q. s. ad.	fl. 3 4

Mix. Dose: a teaspoonful.

33. *Loomis' Tonic.*

R. Quinæ Sulphat.	grs. 30
Acidi Sulph. dil.	q. s.
Aquæ.	fl. 3 2
Tinct. Ferri Chlor.	fl. 3 1/2
Spts. Chloroformi.	fl. 3 6
Glycerinæ q. s. ad.	fl. 3 4

34. *Or:*

Sol. Quinæ Sulph. (15 grs. in fl. 3 1)	fl. 3 2
Tinct. Ferri Chlor.	fl. 3 1/2
Spts. Chloroformi.	fl. 3 6

- Glycerinæ q. s. ad..... fl. 3 4
 Mix. Dose : a teaspoonful.
35. *Mist. Acidi Muriatici* (O. P. D.)
 R. Acidi Muriatici..... fl. 3 3
 Tinct. Gent. Co..... aa fl. 3 8
 Aquæ..... aa fl. 3 8
 Mix. Dose : a teaspoonful.
36. *Mist. Cinchonice Sulphatis* (O. D. P.)
 R. Cinchonice Sulph..... 3 1
 Acidi Sulphur. dil..... q. s.
 Aquæ..... fl. 3 4
 Mix. Dose : a teaspoonful.
37. *Mist. Ferri Co.* (U. S. PHARM.)
 GRIFFITH'S MIXTURE.
 R. Ferri Sulphat..... grs. 20
 Potassii Carbon..... grs. 25
 Pulv. Myrrhæ.....
 " Sacchari..... aa 3 1
 Spts. Lavand. Co..... fl. 3 1/2
 Aquæ Cinnamom, q. s. ad.. fl. 3 8
 Mix. Dose : 1-2 tablespoonful. In preparing this the sulphate of iron, dissolved in 1/2 fl. oz. of the Cinnamon water should be added last. The mixture should be made fresh, when wanted.
38. *Mist. Ferri et Ammon. Citratis* (O. D. P.)
 R. Ferri et Ammon. Cit.....
 Ammonii Carbon..... aa grs. 32
 Syrupi.....
 Aquæ Anisi..... aa fl. 3 2
 Mix. Dose : a teaspoonful. (*Dr. J. L. Smith.*)
39. *Mist. Ferri et Cinchonice* (C. H.)
 R. Cinchonice Sulph..... 3 1
 Acidi Sulph. dil..... q. s.
40. *Or :*
 Sol. Cinchonice Sulph. (30 grs. in fl. 3 1)..... fl. 3 2
 Tinct. Ferri Chlor..... fl. 3 2
 Mix. Dose : a teaspoonful.
41. *Mist. Ferri et Cinchonice* (O. D. P.)
 R. Cinchonice Sulph..... 3 1
 Tinct. Ferri Chloridi..... fl. 3 2
 Aquæ q. s. ad..... fl. 3 4
 Mix. Dose : a teaspoonful.
42. *Mist. Ferri et Quiniæ.*
 R. Quiniæ Sulph..... grs. 30
 Acidi Sulph. dil..... q. s.
 Aquæ..... fl. 3 2
 Tinct. Ferri Chlor..... fl. 3 2
43. *Or :*
 Sol. Quiniæ Sulph. (15 grs. in fl. 3 1) Tinct. Ferri Chlor. fl. 3 2
 Mix. Dose : a teaspoonful.
44. *Mistura Iodata* (O. D. P.)
 R. Potassii Iodidi..... 3 4
 Syr. Ferri Iodidi..... fl. 3 1
 Tinct. Calumbæ q. s. ad.... fl. 3 4
 Mix. Dose : a teaspoonful.
45. *Mistura Nigra* (O. D. P.)
 R. Ferri et Potass. Tart..... 3 1
 Tinct. Cinch. Co..... fl. 3 4
 Mix. Dose : a teaspoonful.
46. *Mistura Strychnicæ.*
 HALL'S, MODIFIED.)
 R. Strychnicæ Acet..... gr. 1
 Tr. Cardam Co..... fl. 3 1/2
 Alcoholis.....
 Aquæ..... aa fl. 3 2 1/2

- Syrupi q. s. ad..... fl. 3 4
 Mix. Dose : a teaspoonful.
47. *Smith's Bitters.*
 R. Tinct. Cinch. Co.....
 Tinct. Gent. Co..... aa fl. 3 1
 Mix. Dose : a teaspoonful.
48. *Strychnine Tonic* (Ins. As.)
 R. Tinct. Ferri Chlor.....
 Tinct. Nucis Vom..... aa M 10
 Aquæ q. s. ad..... fl. 3 1
 Mix. One dose. To be taken thrice daily, after meals.
49. *Syr. Calcis Lacto-phosphatis.*
 Is a solution of calcium phosphate in lactic acid and syrup. Contains in 1 fl. 3 :
 Calcium phosphate..... grs. 16
 Lactic acid..... grs. 33
50. *Syr. Ferri Quin et Strych. Phosph.*
 Contains in 1 fl. 3 :
 Phosphate of iron..... grs. 2
 Quinia..... gr. 1
 Strychnia..... gr. 1/2
51. *Vinum Ferri Carnis et Cinchonæ.*
 (WINE OF IRON, BEEF and CHINCHONA.)
 Represents in 3 1 fl. :
 Cinchona Bark..... grs. 32
 Extract of Beef (Liebig's)... grs. 16
 Pyrophosphate of Iron..... grs. 8
 Dose : a teaspoonful.
52. *Vinum Ferri Citratis.*
 R. Ferri et Ammonii Citratis.... grs. 20
 Vini Xerici..... fl. 3 2
 Mix. Dose : a teaspoonful.
53. *Vinum Ferri et Quiniæ Citratis.*
 R. Ferri et Quiniæ Citr..... 3 1
 Vini Xerici..... fl. 3 2
 Mix. Dose : a teaspoonful.
54. *Vinum Ferri et Quinidiæ Citratis.*
 R. Ferri et Quinidiæ Citr..... 3 1
 Vini Xerici..... fl. 3 2
 Mix. Dose : a teaspoonful. To prevent confusion, this should always be prescribed by writing the word "Quinidiæ" in full, and when "Quin" is ordered this should only be understood as meaning Quinia.
55. *Ward Iron* (C. H.)
 R. Tinct. Ferri Chlor.....
 Syrupi..... aa fl. 3 4
 Aquæ..... fl. 3 8
 Mix. Dose : a teaspoonful.

NEWS ITEMS AND NOTES.

The Will of the Late Dr. Wood.—The following items of the will are likely to be of interest to physicians generally. Dr. Wood's pathological cabinet is left to the medical department of the University of Pennsylvania. His bond and mortgage of \$5,000 which he held from the Philadelphia College of Physicians he present to the society, and with it all his books on science and medicine, and the sum of \$10,000, the income of which is to be used in paying the librarian of the society, and in lighting, heating and repairing its building \$50,000 is set apart as a permanent endowment fund of the auxiliary department of medicine in the University of Pennsylvania. All his medicinal plants he

leaves to the med. department of the university, and with them \$5,000 for the construction and equipment of a botanical garden and conservatory. \$75,000 is left for the endowment of a free ward of twenty beds in the University Hospital, to be called the "Peter Hahn Ward." The Children's Hospital and Philadelphia Dispensary each receive \$5,000. A certain part of the income of Dr. Wood's cranberry lands in New Jersey is to be invested each year in the name of the University of Pennsylvania. When this sum amounts \$500,000 it is to be divided between the medical department and the other departments of the University. In consideration of his numerous bequests all patients from Cumberland county, N. J., up to a certain limit, applying each year for treatment and nursing at the University Hospital are to receive such treatment together with bed and board in the wards gratis.

Origin of Diphtheria.—Diphtheria is believed to have originated in Egypt more than 2,000 years ago. It prevailed in Egypt and Asia Minor, to which it extended, during the first 500 years, and hence was early called an Egyptian or Syriac disease. Having invaded Europe, the disease appeared in Rome, A. D. 330, and being highly contagious, in its 1,500 years' transit on the continent of Europe, it affected mainly rural districts and garrisoned towns. It extended to Holland, in which it was epidemic in 1337; to Paris in 1576, and again appeared there in 1771. It prevailed more extensively in France in 1818 and 1835, and in England, the United States and Canada from 1856 to 1860, and more or less since.

A Substitute for the Horse.—A number of country practitioners in England are employing bicycles or tricycles as a means of locomotion, and the use of these vehicles is increasing considerably. They do not supply the place of a horse entirely, but they enable the physician to do away with an extra one. The bicycles are made of iron and steel, the rim of the wheel being covered with rubber. Upon them one can travel over tolerably rough and icy roads and up quite steep grades. On good ground the rate of speed is a mile in five minutes; racing speed being, however, much greater. The ordinary rate of travel is eight or ten miles an hour. Tricycles are also made, which are safer than the bicycles and nearly as fast. In these the rider sits between two wheels which he propels by a treading motion; a third and guiding wheel is placed in front. There are very likely many places in this country where this mode of locomotion could be used with advantage.—*Med. Record.*

New Professor of Chemistry in the Philadelphia College of Pharmacy.—Professor Samuel Sadtler has been elected to the chair of chemistry in the Philadelphia College of Pharmacy, vice Professor Robert Bridges, M. D., resigned. Professor Sadtler, who graduated in 1867, is a native of Pennsylvania. He studied chemistry at the Lehigh University, also subsequently with Professor Walcott Gibbs, and spent a year and a half pursuing his studies at Heidelberg, Germany. He was professor of Chemistry in the Gettysburg College for three years, and he now retires from the professorship of general and analytical chemistry in the scientific department of the University of Pennsylvania to take the position

to which he has been elected by the Board of Trustees of the College of Pharmacy. Professor Sadtler is the American editor of *Atfield's Chemistry*, and is well known as a writer on chemical subjects.

A Remarkable Case of Menstruation.—Dr. H. Rodewitch relates (*Vratschebnya Vedomosti*) the following case: The widow of a peasant from the province of Nishni-Novgorod menstruated for the first time at the age of thirty-six. The first coitus took place in her fifteenth year, before any signs of menstruation had appeared, and from this time during the whole of her married life the patient was either pregnant or suckling her children. Her husband died when she was thirty-six years old, and ever since the catamenial flow has shown itself with the greatest regularity. It is remarkable that she had twins in her second, fourth, and eight confinement, so that the entire number of children she had amounted to sixteen.

Cure for Yellow Fever.—A doctor in Buffalo having stated in one of the daily papers that champagne was a preventive as well as a certain cure for yellow fever, many of the men who were accustomed to sneak into side doors of saloons now walk boldly in the front entrance. Strange to say there has not been a single case of yellow fever in Buffalo.

A Novel Item.—A physician in the South who made out his bills by items, inserted the following in one of them: "For waking up in the night and thinking of your case, \$5.00."

Psychical Effects of a Snake Bite.—A farmer in New Hampshire while out mowing with his son, aged 15, in a lot that had many briars about its edge, suddenly found his hand bleeding, and ascribed it naturally to the scratch of a thorn. A few moments later he was surprised by the sight of a large poisonous adder curled up in one of the bushes. He at once made a slash at the reptile with the scythe, and succeeded in cutting the body cleanly in two. The thought suddenly struck him that instead of a briar scratch, the wound on his hand might have been inflicted by a snake. He then, for the first time noticed a sharp stinging pain in his hand, arm and shoulder, and rolling up his shirt sleeve, thought the arm was swelling fast. Now in mortal terror, he dropped his scythe, and not stopping to speak to his son who was at work in a distant part of the field, he rushed to the fence and catching up his coat, tried to put it on. To his horror he found he could not do it owing to the great swelling of the arm. Throwing it across his shoulders, he ran for the house, reached it, fell fainting on the kitchen floor. The wife sent at once for the doctor, and stimulants were administered a moment after, when the farmer had recovered consciousness, and was telling what was the matter, the son ran in and shouted "Why, dad, what's the matter, what made you run so, and why have you carried off my coat." The arm was examined and found to be its natural size, the farmer having, in his hurry, taken his boy's coat, and not being able to get his arm in the sleeve, had thought it swelled, and hence the terror. The wound on the hand was made by a briar, and before the doctor came the farmer was at work in the field again. So much for the power of imagination.

BULLETIN OF THE PUBLIC HEALTH.

Issued by the Surgeon-General, U. S. Marine Hospital Service, under the National Quarantine Act of 1878.

[No. 38. Week ended March 22d, 1879.]

CITIES.	Total Deaths.	Annual Rate per 1,000 of Population.	DEATHS FROM—					
			Diphtheria	Scarlet Fever.	Enteric Fever.	Acute Lung Diseases.	Phthisis	
New York.....	557	26.6	8	54	8	..	93	Whooping Cough caused 25 deaths.
Philadelphia.....	309	17.8	12 (30 cases.)	10 (70 cases.)	10	..	61	
Brooklyn.....	209	19.2	18	11	..	..	25	Whooping Cough, 2; Croup, 4.
St. Louis.....	107	11.	4	..	1	..	12	Erysipelas, 2.
Chicago.....	148	16.7	18	..	3	..	15	Cer. Spinal Fever, 2; Whooping Cough, 3.
Boston.....	142	20.2	7	3	3	..	25	
Baltimore.....	149	21.2	2	4	2	..	29	Croup, 4; Erysipelas, 2.
Cincinnati.....	76	14.1	5	8	1	..	11	
District of Columbia.	83	..	2	1	1	..	13	
Pittsburg.....	45	16.	1	..	2	..	6	Cer. Spinal Fever, 1.
Buffalo.....	34	12.4	4	5	..	..	6	Croup, 5; Cer. Spinal Fever, 2.
Cleveland.....	56	17.9	3	..	..	..	7	Cer. Spinal Fever, 2; Erys., 1.
Newark.....	74	30.8	4	..	2	..	8	Diarrhœal Diseases, 5.
Providence.....	37	19.2	1	3	1	..	6	Croup, 4.
Richmond.....	30	20.	2	..	..	..	4	Cer. Spinal Fever, 1.
New Haven.....	..	..	..	..	..	..	..
Portland, Me.....	7	10.	1	..	..	..	1	
Savannah.....	16	..	..	..	..	..	3	
Total for week.	..	Average.	..	..	23	..	..
San Francisco, week ended March 21st	64	10.9	3	..	1	..	12	
New Orleans, week ended March 23d.	105	26.	2	..	1	..	25	
Montreal, week ended March 15th...	..	..	..	..	..	..	..

Havana.—Week ended March 29th. Small-pox caused nineteen deaths, yellow fever one.

Great Britain.—Week ended March 15th. In twenty-three large cities, with an aggregate population of 8,503,000, the average death rate was twenty-eight per 1000. Rate in Dublin thirty-eight, Nottingham thirty-seven, Leicester thirty-four, Leeds thirty-four, Manchester thirty-three, London twenty-nine, Liverpool twenty-nine, Sheffield twenty-nine, Birmingham, twenty-seven, Glasgow twenty-five, Brighton twenty, Edinburgh nineteen. Whooping-cough was epidemic and excessively fatal in several towns. The deaths from acute lung diseases steadily increased during the six weeks preceding March fifteenth, and during the last two weeks of the period

caused 1362 deaths in London, nearly one-third of the whole mortality. Small-pox caused seventeen deaths in London, eighteen in Dublin during the week.

Paris.—Week ended March 13th. Total deaths 1093. Annual rate 28.6. Small-pox caused eighteen deaths, diphtheria twenty-two, enteric fever forty.

German Empire.—Week ended March 8th. In 149 cities with a population of 7,539,574, there were 1296 deaths, an average rate of 26.6 per 1000. Rate at Berlin 25.7, Dresden 24.4, Munich 28, Hamburg 23.6, Cologne, 23.3, Frankfurt 25.

J. B. HAMILTON.

Acting Surgeon, U. S. Marine Hospital Service.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount for a year's subscription. We do not undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

INFLAMMATION OF THE LATERAL COL-
UMNS OF THE SPINAL CORD FOLLOW-
ING A SEVERE FALL UPON THE BACK.

A Clinical Lecture Delivered at the Pennsylvania Hospital, Philadelphia

BY

JAMES H. HUTCHINSON, M.D.,

Physician to the Hospital.

(Reported for THE HOSPITAL GAZETTE.)

This patient was admitted to the hospital about one month since. On Dec. 7th, 1878, while at sea he fell some thirty-six feet, from the rigging to the deck. He is said by the spectators to have fallen partly on his head and partly on his back. The captain avers, that in falling the man grasped at a rope and so broke the force of the fall, but the man himself is not conscious of any such thing.

When picked up he was unconscious and remained in this condition for some fifteen minutes. Two slight scalp wounds were sustained, the position of the more serious one is shown by this cicatrix. Upon regaining consciousness he found that the right arm and leg were entirely paralyzed, and the left arm almost entirely. There was no aphasia, however, and no symptom of paralysis of the cranial nerves. The patient received no treatment whatever while at sea. During this time there was no incontinence of urine or of feces. He was at first obliged always to wait a few minutes before the urine would flow, but at no time was there any need for the use of the catheter.

There has been no trouble whatsoever with the bladder since he has come into the hospital. Upon questioning him closely we find that he has never had any sickness to speak of previous to the accident. Some years since he contracted chancre, but it was not followed by any constitutional taint—no syphilitic eruptions, etc. His kidneys are in good condition, and the urine contains no albumen. There is no disease of the heart, lungs or liver.

Upon the head, over the right parietal bone, the cicatrix, left by the scalp wound, is plainly seen. There is no evidence of any paralysis of the muscles of the face; there is no ptosis and no strabismus. There is a slight degree of optical neuritis, seen with the ophthalmoscope, but not enough to indicate the existence of any serious disease of the brain.

When he walks you see that he carries his head somewhat forward, and that when I try to bring the head back into an entirely erect position, I meet with difficulty and give him pain. Moving the head forward I also meet with some stiffness. The lateral motion in like manner is slightly interfered with.

When I examine the back I am unable to discover any injury to the bones. At the point of the juncture of the cervical with the dorsal spine there

is some thickening and induration—due to some straining of the ligaments no doubt—which explains the unnatural position of the head, and the rigidity of the neck.

The right arm has not yet entirely recovered its power. The grasp of the right hand is not by any means strong. He is unable either to extend or to close the fingers of that hand, nor can I close them without employing great force and giving him great pain. This tendency to contraction exists also, elsewhere—in the right biceps particularly—so that the right arm cannot be fully extended. The shoulder, too, is stiff, so that I have to exert much force to lift the arm above the horizon. There is some atrophy of the muscles of the right hand, especially noticeable in the spaces between the metacarpal bones. This cannot be ascribed to the fact that the man has been doing no work lately, because we do not find the same atrophy elsewhere. He holds his hand in a peculiar position—cannot "make a fist" of it," as they say. When he allows his hand to hang for any length of time you notice how blue it becomes. This is owing to the defective circulation in the limb.

When we come to examine the left hand we find that he can close it, but not by any means completely. There is considerable stiffness at the wrist, and the same tendency to muscular atrophy as in the other hand.

The man's walk is peculiar, although he has improved very much since he has been in the wards. (Two weeks ago he could not leave his bed.) The complete rest he had at sea was of the greatest benefit to him. The right leg is somewhat stiff—more rigidly while the foot scrapes the floor. In hemiplegia the leg is thrown around in walking. In hysteria it is dragged. Here you will also notice that as he moves his leg there is a certain amount of trembling in the member. The more he walks the more evident this trembling becomes. Upon stripping off the clothes from the legs you can see that the feet are more extended than is natural. It is very hard to bring the foot of either leg (the rigidity is more marked in the right leg), up to a right angle, and when I do it the trembling is very much increased, and the tendo Achillis grows very tense.

This spasm of the leg, which is caused by the attempt to bring the foot up to the right angle goes by the name of "ankle-clonus," and is a reflex symptom.

So much for the foot. I will now point out to you some other interesting symptoms. See how well marked, indeed, how exaggerated the tendon reflex of the patella is in both legs! But a short time since there was a patient in the hospital in whom this tendon reflex had entirely disappeared.

There is certainly no very marked impairment of the sensation of either touch or pain in the feet. The patient, with his eyes shut, can tell not only which foot, but also what part of the foot I am touching. This sense of touch does not exist as acutely in the three middle toes of each foot, but then nine men out of ten cannot properly localize sensations in these places. Sensation is perfect in the left foot, and but very slightly, if at all, impaired in the right. I do not think there is any appreciable difference as regards sensation between the two feet.

He can distinguish between the compass points

when they are but slightly apart. Pricking the soles of the feet with the compass points causes violent reflex activity. In another patient whom I will show you in a moment I can bury the compass point in the flesh without any sensation of pain on his part.

The contraction of the muscles under the Faradic current in this case is slightly impaired in both right and left leg and right and left arm. It is more impaired in the arms than in the legs, especially in the right arm.

Occasionally trembling may be produced by pressure upon the lower part of the spinal column, I can bring out the most marked trembling in this way to-day, by this spinal pressure.

In the other case, which I mentioned to you a few moments ago, there is great impairment of the tendon reflex. The man has not been able to walk since November. (Here the man was brought into the lecture room.) There has been some long standing deformity in this left foot. The man tells me that it never developed as rapidly as the right foot. The deformity was probably produced by infantile paralysis, which is usually followed by contraction of the tendons, and the leg ceases to develop as rapidly as the other.

He does not feel it at all when I scratch the soles of his feet. There is some slight sensation when I scratch deeply on the top of the left foot. When I plunge the pin point into the flesh it is some little time before the sensation reaches the brain, and then the feeling is not an unpleasant one. In this second case there is evidently both anæsthesia and analgesia, or at least very defective conduction of the sensations. The contraction of the muscles of the legs under electricity is very feeble indeed. There is no trembling in this case, and no symptom whatever above the waist. He can bring two points together from opposite directions, with his hands, more accurately than most men, and can raise a cupful of water to his lips without spilling a drop. He is a watchmaker by trade, and a few days ago took a watch to pieces and put it together again without difficulty.

In investigating the case which has formed the subject of to-day's lecture, we have two difficulties presented to us for solution. 1st. In regard to the nature of the original injury. It matters very little whether or not he broke the violence of the fall by catching hold of the rope as he fell, as his captain asserts he did. We have certainly the evidences of a severe blow upon the back. I have already pointed out to you that there is no reason to believe that he received any cerebral injury at the time. The unconsciousness which followed the fall, and which continued for only fifteen minutes, can be attributed without difficulty to the shock, in addition to which there has been no aphasia, common in right-sided paralysis, no strabismus, no ptosis, no deviation of the tongue—in fact no paralysis of any of the cranial nerves.

The violence of the blow seems to have principally been felt at the junction of the dorsal with the cervical vertebræ, but as I have already said, I have no reason to believe that the bones were injured at that point. There was plainly no fracture, or the results would have been much more serious.

The injury may have originally been concussion of the spine, but it is hardly likely that a simple concussion would have given rise to paralysis of the muscles of three extremities. It was more probably an instance of apoplexy of the cord.

In serious apoplexies of the cord occurring high up in the back, there is paralysis of all four extremities. If the clot is formed still higher up, the phrenic nerve is implicated, and more or less difficulty of breathing results. As far as I can gather, there has been at no time interference with the respiratory act in this case. The effusion of blood could not have been a very large one, as there was no paralysis of the left leg, no urinary difficulty, and no pronounced tendency to the formation of bed sores here, as is common in serious spinal apoplexies.

In apoplexy of the cord the seat of the effusion is generally the grey matter, and it seems not unlikely in view of the atrophy of the muscles of the hands which I have pointed out to you, that the anterior cornua were involved in the original injury. At the present time, however, there are symptoms which show that no matter what was its original cause the lateral columns have become involved. In inflammation of these columns, we have many of the symptoms which are present in this case. The spastic contraction of the muscles so largely conspicuous here, is a condition pathognomonic of this disease. The absence of anæsthesia shows that the posterior columns cannot be seriously affected, and the absence of analgesia would seem to prove the same thing is true of the grey matter. The grey matter is indeed apparently in a condition of irritability as shown by the increased tendon reflexes, the ankle-clonus, etc. You will find that all these symptoms are said by Charcot to occur in sclerosis of the lateral columns, and that this disease may sometimes occur as a consequence of violent blows or falls upon the back. Indeed, it would appear that a simple concussion of the spine is alone sufficient to produce it. In the case under observation, however, concussion alone would hardly explain the paralysis which immediately followed the injury, and has persisted in a greater or less degree ever since.

The patient, as I have already had occasion to tell you, had received no treatment while at sea, at least no medicinal treatment, but he was allowed complete ease and that was perhaps the best thing that could have happened to him under the circumstances.

For a day or so after his admission to the Hospital, in consequence of the transfer of the wards, the patient received no special attention. As soon as I saw him, however, I thought it proper to apply a blister to the seat of induration in the back, and to administer the bromide of potassium internally, so as to diminish nervous irritability.

When I saw that the cord was in a state of inflammation, I ordered gr. $\frac{1}{8}$ of the bichloride of mercury to be given four times a day with the bromide.

He is now taking gr. x. of the iodide of potassium thrice daily. This dose I will now order to be increased to gr. xx. three times in the course of the day. The corrosive sublimate is given for its beneficial effect in inflammations of the cord. The iodide of potassium is given because experience has

shown that it is of use as an alterative in such cases.

Immediately after the reception of the injury it would have been well to have given ergot hypodermically. In several cases of congestion of the spinal cord treated here belladonna has also been given with advantage.

Since he has been under my care two blisters have been applied to the spot of induration at the junction of the dorsal and cervical vertebræ. I will order the patient to be blistered occasionally hereafter. Blisters are excellent as revulsives.

Were we to employ electricity at this time we should probably do nothing but increase the nervous irritability. So, too, with regard to strychnia, which is of value in spinal disease only where the irritation has gone and paralysis remains.

Rest is the all-important element in the treatment. The rest at sea did much to cause the present very marked and increasing improvement in the case. It will be well for the man still to remain on his back in bed for the larger part of the day.

I have never seen the tendon reflex and "ankle-clonus" so marked in this man's case as they are to-day, and it is probably owing to this fact that he has walked down-stairs from the ward.

I do not think that, provided proper attention is paid to the patient, there is any danger of the formation of bed sores in this case, no matter how much the patient may be on his back. There is no interference with the proper functions of the bladder and rectum.

I think it well to impress upon you all the necessity of seeing that the bladder is always entirely emptied in cases of spinal disease. Sometimes it may seem as if the water were passed regularly, but upon introducing the catheter you may find that the water which has been passed was only an overflow from a distended bladder. And if this state of affairs is overlooked the nervous disease may be complicated by a serious cystitis.

The prognosis here is favorable. We do not expect to restore the patient to perfect health, but he will probably be able to earn a living.

A few years ago I had a patient under my care in the Hospital who, as the result of an injury from a board falling upon the back of his neck, presented many of the symptoms to which I have called your attention in this case. They were, however, less severe. Under the use of large doses of iodide of potassium, continued for some time, he made almost a complete recovery. This leads me to hope for a more favorable result in this case than I otherwise should.

ORIGINAL ARTICLES.

URETHRISMUS,

OR

CHRONIC SPASMODIC STRICTURE.

BY

F. N. OTIS, M.D.

Surgeon to Charity Hospital.

In the February number of Dr. Brown Sequard's *Archives of Medical Science*, for the year 1873, a case was reported by me, in which repeated retentions of

the urine had occurred, followed after a time, by habitual incontinence, and finally by perineal abscess and urinary fistula, thus presenting what would, ordinarily, have been attributed to the results of close, deep organic stricture alone. The sequel proved, however, that there was no deep stricture. That the retention, etc., was caused by persistent spasmodic closure of the urethra by the compressor muscles. The complete and permanent relief that followed division of a contracted meatus urinarius, led to the inference that the spasm of the compressor muscles was of reflex origin, and that the true point of irritation was at the urethral orifice.

Similar cases were reported by me in a paper read before the New York Academy of Medicine, in Feb., 1874, and again still other cases, 6 in number, in an article on Spasmodic Stricture, published in the *Archives of Dermatology*, in Feb., 1875. In order to recall the important lesson taught by these cases, and to show exactly on what grounds the claim of spasmodic stricture, due to irritation reflected from the anterior part of the urethra, was then based, I now take the liberty of quoting, entire, the first of the six cases there presented (Read before the New York Dermatological Society, Feb. 9th, 1875, published in the *Archives of Dermatology*, Vol. 1, No. 3. Article on Spasmodic Urethral Stricture.) Case 1.

"J. W., frontiersman, aged 45, came under my notice Nov., 1874 with a history of first gonorrhœa, twenty years previously, and several subsequent attacks. Five years after began to have difficulty in passing his urine; stream grew gradually smaller, until, following a debauch, he had complete retention of urine, and was obliged to seek relief at a neighboring military post. After thirty-six hours suffering, he was relieved through the passage of a very small, flexible catheter, by the hands of the post surgeon. After this he submitted to treatment by dilatation for several months. He then learned to pass No. 12, English, soft bougie. From neglect he has had some half a dozen attacks of retention during the past year. At last only the smallest instrument could be passed by the military surgeon, and he was advised to go East and have a radical operation performed, as 'there were no instruments at the post suitable to operate on so small a stricture.' The habit of the patient, for a long time, has been to pass his water very frequently during the day, in a fine, irregular stream, and several times during the night. Physical examination. Is of large stature, looking like a strong man who had endured much exposure and hardship. Made his water, in my presence, in fine short jets and dribbling. Circumference of the penis $3\frac{1}{2}$ inches, size of meatus 23 f.; No. 23 f., steel sound passed easily through a very sensitive urethra, to the bulbo-membranous junction, where it was arrested. Bougies in gradually decreasing sizes were introduced, until finally No. 12 f., passed into the bladder, closely hugged in the deep urethra. Allowing it to remain for a few moments. I found it free. I then withdrew it, divided the contracted meatus and stricture for nearly half an inch back, and passed 34 f., solid steel sound, slowly down to the bulbo-membranous junction, when it slipped by its own weight, into the bladder.

After the withdrawal of the sound, the patient passed his water in a full large stream. From this

moment he had no farther trouble in urination, passing his water at intervals of from six to eight hours during the day, and not at all at night, for the week subsequent to the operation, when he left for his home in the far West, apparently well in every respect." This, and five similar cases, were claimed to be types of a large class where all the usually recognised evidences of deep organic stricture, might exist for a long period and yet no deep seated organic stricture be present; and that this apparent stricture was purely spasmodic, the result of reflex irritation from an anterior stricture, often of large calibre. It was then also claimed that "*the presence of the slightest contraction at any point may be accepted as capable of producing reflex irritation which may result in a spasmodic stricture, which shall possess all the recognized characteristics of deep organic stricture.*" And further "*that no reliable examination of the deeper urethra can ever be made while a stricture or even an erosion is present in the anterior part of the canal.*" The very natural inference to be drawn from these cases and views if they could be shown to be correct, was that a very considerable proportion of the strictures accepted and treated as organic, were probably not true stricture; and that, to treat deep stricture without first seeking and if found, removing as far as possible all sources of irritation shown capable of producing spasmodic action, exposed the surgeon to the danger of instituting surgical procedures, more or less grave, at points where no organic disease existed: thus subjecting the patient to unnecessary peril besides useless pain and annoyance and subsequent damage of various kinds. For the purpose of still further calling attention to the danger and grave consequences of mistaking spasmodic for organic stricture, I published through the ARCHIVES OF CLINICAL SURGERY of Dec. 1876 a striking example of "*Spasmodic stricture of seventeen years duration, causing frequent retentions and also incontinence of urine, cured by division of a contracted meatus urinarius, combined with overdilatation of the membranous urethra.*"

The importance of this case, when considered in conjunction with the cases and views previously cited, appeared to me to warrant the expectation that it would have been made the subject of public comment,—perhaps of discussion,—in the societies and journals, especially as it was well known that there were men of prominence in the profession, both here and abroad, who practically and vehemently denied the existence of spasmodic stricture.*

I confess myself to have been curious to know how the facts stated would be explained, without an acknowledgment of the spasmodic influence. Up to a recent date, however—quite three years from the report of the last case mentioned—no public notice had been taken of the matter. The formidable array of what appeared to me indisputable proofs—facts—had, I began to hope, been quietly accepted, and that the danger of under-estimating the value of the spasmodic element, in the diagnosis and treatment of urethral stricture, was over for all

fair-minded and intelligent surgeons. This view of the situation received a rude shock on the perusal, in THE HOSPITAL GAZETTE of Feb. 13th, 1879, of a clinical lecture on Inflammatory and Spasmodic Stricture, by Dr. Henry B. Sands. In this lecture, after a specious argument, which tended to obscure the importance of spasmodic stricture, by mixing it up with the inflammatory swelling of mucous membrane,† He then presented a summary of the muscular surroundings of the urethra, in which he described the membranous portion as taught by Hancock and Kolliker, viz., that "the membranous division of the urethra is surrounded by a stratum of plain muscle about one mm. in thickness, the fibres being for the most part circular. Externally to this layer is found a considerable quantity of striated muscle constituting the compressor urethræ, and capable of forcible contraction." After thus showing the condition at this point, to be one most capable of, and favorable for, spasmodic action, he goes on to say that, although this is true, "in his judgment purely spasmodic urethral stricture is seldom met with," and further on, "that he believes that a retention of urine from such causes is extremely rare, and that he is extremely doubtful whether this muscle (the compressor urethræ) can contract with sufficient force to prevent the introduction of a catheter properly directed, and that, as far as his personal experience goes, he has yet to meet with a single instance of purely spasmodic stricture." This is Dr. Sands' individual experience. He "will not affirm that such a form of stricture never exists, as a few examples of this kind have been recorded by competent observers." As to what constitutes a *competent* observer, or who those competent observers are or were, we are not informed. Dr. Sands then goes on to break a lance against the theory of reflex action. He opens with a misstatement in regard to the origin of the theory, and introducing with scant courtesy the distinguished French surgeon, M. Verneuil, to whom he erroneously attributes its discovery (an error which I shall take an opportunity to correct a little farther on). He then states, *par parenthesis*, that prior to Verneuil's invention [1866] of the reflex theory there was abundant evidence, acquired by post-mortem examinations, to prove that the large proportion of cases of organic stricture were situated in the bulbous portion of the urethra, and adduces, in proof of the correctness of this evidence, twelve specimens which he has seen in the New York Hospital. This apparently to prove that all strictures situated in the bulbo membranous region were not the result of reflex action. He then attacks the distinguished French surgeon. He states that the views of Verneuil and his pupil, M. Folet, concerning spasmodic stricture, "have not been adopted in his native country." These views, presented by M. Verneuil to the Anatomical Society of Paris in 1866, were briefly as follows, viz., that a large proportion of what are commonly regarded as deep-seated organic strictures were simply spasmodic contractions of the

* Mr. Erichsen, the distinguished English surgeon, says on page 1114 of his "Science of Art and Surgery": "Surgeons, disregarding the evidence of their own senses, and being led away by imperfect anatomical examinations, have denied the possibility of the spasm of this canal."

† Sir Henry Thompson, in his latest work on "Diseases of the Urinary Organs" (1876), page 30, says of what Dr. Sands calls *Inflammatory Strictures*: "If you consent to call this condition stricture, you might as well say that the throat is strictured when it is inflamed and the tonsils swollen."

compressor urethræ muscles, due to reflex irritation, transmitted from organic contractions of the anterior portion of the canal. These false strictures were always located in the membranous urethra. Verneuil's views were corroborated by citation of cases which had occurred in his experience. A year subsequently, M. Folet made the views of M. Verneuil the subject of an elaborate paper, says Dr. Sands, published in *Archiv. Generales* in 1867, in which he recorded ten cases treated in M. Verneuil's service in the *Lariboisiere* hospital during seven months, *only one of which was thought to have been organic stricture*, while in nine the apparent deep stricture *was shown to be due to stricture in the spongy portion of the urethra*.

But, says Dr. Sands, two things are evident in reading M. Folet's paper, first that the writer "is unduly desirous of defending a favorite theory." Secondly, that he "*had mistaken the triangular ligament for a muscular spasm*." Verneuil, Chief of French Surgeons of to-day, and Folet, his pupil, who had written the elaborate article for the *Archives Generales*, have mistaken the triangular ligament for a muscular spasm! Prof. Sands gravely asserts this. A moment's reflection will assure us that the Professor has fallen into the fault of which he accuses M. Folet, that is, of being unduly anxious to defend a favorite theory; for in his haste to do so he evidently overlooks the fact, that, according to M. Verneuil and M. Folet, the obstruction which Prof. Sands attributes to the triangular ligament *disappears promptly and permanently on removal of the anterior strictures previously located*. Surely Dr. Sands would not now insist that it is the triangular ligament which after affording satisfactory evidence of its spasmodic character, to presumably honest and capable observers is caused to disappear permanently by division of a stricture in the penile urethra.

Prof. Sands, who had already indicated the value, in his opinion, to be attached to post mortem examination of strictures, and evidently inclined to discredit the results of researches during life, invites our incredulity, while he states the position of the great French surgeon. Thus, "now Verneuil, who appears never to have examined strictures by dissection, asserted that *deep seated organic strictures, so far from being common, were extremely rare*," and that "*in the immense majority of cases supposed to be of this nature, the real stricture would be found in the penile portion of the urethra, the contraction of deeper segment being due to a reflex spasmodic action of the compressor urethræ muscle*." Prof. Sands would have us infer then, that, if M. Verneuil had but dissected his patients, he would have discovered the triangular ligament and thus have been saved the ignominy of such a mistake, as to suppose a spasm had existed during life.

Prof. Sands having thus demolished M. Verneuil and M. Folet, then proceeds to Prof. Otis. He says, "So far as I am aware the views of Verneuil, and his pupil, concerning spasmodic stricture have not been adopted in his native country; but I have thought it proper to direct your attention to them, because they were presented here, as a surgical novelty, by Prof. Otis, in 1875, and urged by him as a plea for the performance of operations which I believe to be dangerous and unwarrantable."

For those who have read the earlier part of this article, it will be unnecessary to say, that my views on reflex action were utilized as early as 1873, and that they were not the views of M. Verneuil, nor presented by me as a surgical novelty in 1875, I will prove by quotation from my work on stricture of the Male Urethra; its Radical Cure; * (over 8 months previous to the appearance of Prof. Sands article) page 304. (Note. "The results of my earlier observations on the influence of slight contraction of the urethra, in producing various forms of reflex troubles, were first published in Dr. Brown-Sequard's Archives of Medicine in 1873. Since that date I have in published cases and in reports to societies claimed a credit for originality in the discovery of a direct influence exerted by slight urethral contraction, in producing varied and grave disturbances throughout the genito-urinary tract. Even in certain instances extending to distant parts of the entire economy. Within a few weeks, however, (May 1878) a careful search through the published writings of M. Civiale, of Paris, made at my suggestion by my accomplished friend Dr. M. J. DeRosset, of New York) I have found my claims to priority in this matter to be without foundation. Now, while I claim my own published views and observations prior to this date, to have been original with myself, I hasten to concede the honor of priority in this field to the distinguished French surgeon to whom it fairly belongs. The following quotations are from M. Civiale. *Traite Pratique des Maladies Genito-Urinaires* 2 (E), Paris, 1850.

At page 45, et. seq. of his work, M. Civiale writes thus: "*Independent of its local sensitiveness, the urethra possesses another kind which may be termed sympathetic* * * * When this sensitiveness is aggravated it may awaken sympathetic response *in every organ and function of the body*. * * In many cases sympathetic (reflex) phenomena were manifest in the lower extremities, particularly in the soles of the feet." Again, at page 354, et seq. "It is not rare to observe that slight encroachments upon the urethral calibre, induce marked difficulty in micturition; those at the meatus having this effect not less than those located farther in."

Again, at page 160. "Strictures seldom exist for a long time without exciting a series of disorders of the genito-urinary functions, and, consecutively, in remote parts of the body. * * Among these, gleet, retention of urine, difficult micturition. * *

* That which has struck me forcibly in dividing a meatus, only slightly contracted, is the sudden and complete change effected in the general condition of the patient. The constriction, which seemed hardly to impede the flow of urine, is no sooner divided than all morbid symptoms vanish: *the urethral walls which were rigid, hard, and inelastic, immediately recover their normal condition; the bougie, which at first passed only with difficulty and pain, slips into the bladder with ease, and in five or six days the slight incision in the meatus heals perfectly, and the patient finds himself in a state so satisfactory, that it would be incredible, but for the fact that the instances are again and again repeated. An effect so prompt through means of*

* Published by Putnam's Sons, July 1st, 1878.

which the significance is plain, shows that *the slightest obstruction in the urethra is able to produce the gravest symptoms local and general*."

This then effectually disposes of the statement of Dr. Sands that the reflex views of M. Verneuil were introduced here by me as a surgical novelty in 1875, by proof that the views were my own, and introduced in 1873. It proves also, what is much more important viz: That the theory of reflex action applied, or according to Dr. Sands, "*misapplied*," to urethral difficulties was first advanced by M. Civiale, one of the most distinguished surgeons of his time, not of France alone, but of the world, and supported with all the force of his position, his personal character, his personal experience.

Sixteen years after M. Verneuil, the surgeon who more nearly perhaps, than any other occupied and still occupies the commanding position of M. Civiale, repeats and supports this reflex theory before the Anatomical Society of Paris. M. Folet confirms it in the Archives Generales a year after, and M. Cornillon again brings proof of its value and truth in 1870, yet he brings as his only argument against the reflex theory the statement that, in his opinion, these views of M. Verneuil "*rest on a very slender foundation*". * * "and are not accepted in his own country." They would not even have been worthy of his attention, but that, not alone were they presented here as a surgical novelty, by Prof. Otis in 1875, but were "*urged by him as a plea for the performance of operations which*" he says, "*I believe to be dangerous and unwarrantable.*" "It was held," he further says, "*that as a rule what surgeons generally regarded and treated as deep-seated organic stricture was, in fact, merely a constriction of the membranous urethra, caused by chronic spasms of the muscular fibres surrounding it, and that, a constriction of this kind, could not be distinguished from one dependent on true organic stricture.*" It was furthermore alleged that the free division of one or more anterior strictures, presumed in such cases to exist, would be immediately followed by a subsidence of the spasm, permitting the easy introduction of a full-sized instrument."

Such statements, says Dr. Sands, demand the closest scrutiny and cannot be accepted without reserve." The presentment here of my position is certainly fair enough, with a single exception—viz, "*that a spasmodic stricture cannot be distinguished from an organic stricture*"—he should have added, by any of the methods of diagnosis usually employed by surgeons or laid down by authorities. Dr. Sands included. "Such statements," Dr. Sands says truly, *demand the closest scrutiny and cannot be accepted without reserve.*" This position, is most certainly the true and scientific one, and yet, on the following page, Dr. Sands says, "*regarding the theory unsound, I cannot think the practice deduced from it, otherwise than pernicious.*"

Instead of giving the matter (the value of which had been attested by men equally competent, equally honest and interested in getting at the truth, as himself) the scrutiny, he claims, the subject demands, he denounces it and its originator, its advocates, its operations and its results, of whatever name or nature. Among the various and ingenious hard sayings and judgments and predictions, he states (and with

the dogmatism which he charges upon the advocates of the reflex theory on a previous page) that "*it neglects the principle disease for one of secondary importance.*"

This charge is explicit and seems to invite a direct reply. Let us see—A man is suffering with recurring retention of urine and habitual difficult micturition. We are able to pass only a small instrument into his bladder; we find a contracted meatus urinarius, but the chief obstruction is in the membranous urethra. We divide the meatus urinarius—slip a large sized sound easily into the bladder; he is cured, *vide* case 1st. This case, if verified, proves the charge, that the principle disease is neglected for one of secondary importance, to be manifestly untrue.

The case of spasmodic stricture of 17 years duration, previously referred to as an extraordinary example, proving the same thing, has been circumstantially before the profession for more than three years.

Dr. Sands attempts to evade the conclusive evidence, presented in this and kindred cases, by replying that "*such marvellous cases have not impressed me with their validity.*" Now instead of this dogmatic method of disposing of this, which it is so tempting under the circumstances, I invite the "*closest scrutiny*" and by the simple statement, that, not alone this case, but many others, and at least three of the six cases previously reported, are still within the reach of investigation. The gentleman who suffered for 17 years with retentions of urine and other difficulties which were attributed to deep organic stricture, and who was ineffectually treated for it by several distinguished surgeons in civil life, and by many others of good repute in one of the branches of our government service, is still living and well. He is both able and willing to respond to any questions as to the correctness of my statements, in regards to his troubles, and in regard to the date mode, and permanence, of his recovery. Several of the surgeons, who treated him previously, are still living. To both these and to the gentlemen who was the subject of the trouble I shall be glad to refer any committee, of any recognised medical society or any reputable member of our profession who has not been impressed with the validity of my statements.

Independent information, may thus be readily obtained, upon any point in connection with the alleged case.

I challenge honest criticism, or any other sort of criticism, upon every point of alleged fact connected with this case, or any other with which I have been at any time publicly or privately associated, and upon the deductions therefrom; and I hold myself in readiness to prove, by living and competent witnesses, every essential point which I have ever claimed in the matter of reflex spasmodic stricture.

Dr. Sands states, that, he has "*examined many cases of well marked penile stricture without being able to discover the slightest accompanying obstruction in the membranous urethra,*" and that thus he feels justified in stating that the association, as alleged, of organic penile stricture, with deep spasmodic stricture, is neither frequent nor *invariable*.

He would have us infer from this that there are some who allege that this association is *invariable*

This position is a false one as far as I am concerned, and I have never yet known this to have been alleged by any surgeon. That such association is frequent, I stand competent to prove; and that the spasmodic character of the deeper obstruction is also frequently overlooked; that it is mistaken for and treated as organic stricture by dilatation, by internal urethrotomy, and, not unfrequently, by external perineal section. In closing, Dr. Sands reports a case in which an operation was performed by one of his colleagues, in the New York Hospital, when "a stricture 5 inches behind the meatus was present, admitting only a filiform bougie. Anteriorly several strictures of large calibre were diagnosed, and it was decided to divide them, in the hope that the deeper obstruction would then yield; but after the meatus had been freely cut and the urethra so extensively divided with the dilating urethrotome, that a bulbous sound, No. 33 f. could be passed without resistance, from the meatus to the bulb, the deep stricture remained as tight as ever." "The result," says Dr. Sands, "was as I had anticipated. I was greatly interested in the operation, as a scientific experiment, and have no hesitation in saying that it would have been far better if the injury inflicted on the anterior part of the urethra had been avoided." He then denounces the operation as an "heroic procedure," and "at least useless," and "by no means free from risk."

Let us examine into this case a little. In the first place, in addition to the presence of a deep, close stricture, it had been ascertained that there were several anterior strictures of large calibre; these were first divided to 33 (the average healthy urethra being proven about $32\frac{1}{2}$ m m.) The object was first to clear away acknowledged pathological conditions in the anterior urethra, in order to ascertain whether or not the deeper and more important obstruction was spasmodic or organic. This was accomplished. The deep stricture remained and was thus proven to be organic, and also operated on.

The experiment Dr. Sands describes as a scientific one, and yet in the next sentence he denounces it as uncalled for and unwarrantable. Why? he would probably reply because it failed. It is then unscientific to repeat a scientific experiment which has once failed? In this case, however, the *experiment* (expedient really), *did not fail*, because, through it the true character of the deep obstruction was ascertained. The operation not only removed previously ascertained strictures but aided efficiently in the diagnosis, which was, before this, uncertain. It is distinctly appreciated that, in many cases, true organic stricture does exist, but that it is only by first removing any presenting anterior strictures, that it can with certainty be decided whether the deep obstruction is organic or spasmodic.

Dr. Sands would have us claim that *all deep obstructions are spasmodic*, and then, whenever he meets a case, like the one cited, he can claim that there is such a thing as organic stricture, *therefore all strictures are organic*. Now, lest there should be further misunderstanding of this matter, I desire to state distinctly that *deep organic strictures are common*. I have reported operations upon many such in my volume on the Radical Cure of Stricture, both by internal urethrotomy and by external perineal

section. But I desire still further, as distinctly, to state that *I have met with many more strictures which had been treated by other surgeons both by dilatation and urethrotomy external and internal, which were purely spasmodic*, and in this is the important part of the matter. It may not be improper for me to ask why the scientific experiment above cited was entered upon in the New York Hospital? Dr. Sands will, in his absence, permit me to answer. Within the previous month, a patient was admitted to the wards of the New York Hospital, suffering from deep urethral stricture. The stricture was a very close one and located in the membranous urethra. The operation of perineal section was decided upon. Notices to that effect were issued. The patient, when the proper time arrived, was ætherized, brought into the amphitheatre of the New York Hospital, and the perineal section was about to be performed. The distinguished surgeon and colleague of Prof. Sands had become familiar with my procedure in such cases, and he proposed, after ætherization, in order to test the matter of diagnosis more fully, to remove, first, several anterior contractions which were found to be present. This was accordingly done, with my dilating urethrotome, clearing the penile urethra from stricture, stopping short of the deep strictures at $5\frac{1}{2}$ inches. A large sound was then entered, and, *slipped, by its own weight, into the bladder*. A second case, in the service of the same surgeon, of exactly similar character, and two others of exactly the same kind, occurred in the service of another of Prof. Sands' colleagues, in the same hospital, within the following two months. And this it was, that led to the scientific experiment which Dr. Sands witnessed with so much interest and the alleged failure of which gave him so much satisfaction.

Dr. Sands, in expressing his personal feeling in regard to the operation of removing anterior strictures by dilating urethrotomy, characterizes it as a *mutilation*, just as on a previous occasion he called a division of the meatus urinarius a *mutilation*. This appears to be a favorite expression to signify his disapprobation of a surgical procedure. He does not attempt the somewhat difficult task of stating the character and amount of damage done. It would be interesting to know what term he would apply to *perineal sections* in cases of spasmodic stricture, such as was proven to exist in the four cases mentioned, and *which would have been operated on by the perineal section, if the spasmodic character of the obstruction had not been determined by a previous dilating urethrotomy*. Dr. Sands, like all good surgeons and citizens, deprecates unnecessary and extensive cuttings as not very creditable to American surgery. No one is more likely to discredit American surgery, by extensive and unnecessary cutting, than those who, like Dr. Sands, refuse to make use of the only means by which a certain diagnosis is possible, and who, recklessly, cut into the perineum, for the division of deep, close strictures, in defiance of the dangers which the views and cases I have cited so abundantly prove and illustrate.

Dr. Sands claims that the theory of spasmodic stricture is unsupported by evidence derived from *pathological anatomy*, and that those who uphold it are bound to prove their assertions by *anatomical evi-*

dence. I should here like to ask Dr. Sands what he would consider the *anatomical evidence* pathological or otherwise of a *spasm*.

He says further, that spasmodic and organic strictures, are two affections so widely different that they can be confounded only by an incompetent observer, and that "any doubt as to the true nature of the case can be settled by the administration of an anæsthetic."

The intended limits of this critique are already passed, but I will answer these last two allegations, which I consider untrue, by citing as proof of my position, in these and other respects, the following case in point.

Mr. D. J., planter, aged 35, was referred to me June 19, 1877, by Drs. A. Y. P. Garnet and N. S. Lincoln, of Washington, with the following history: First and only specific urethritis in 1865; severe at the outset, but soon painless, and from that time has never been quite free from a urethral discharge. Two years after, [1867,] began to appreciate a lack of force in urination and dribbling after the act; in 1867-'68-'69 was in the railroad service, which aggravated his trouble. Nothing serious, however, until 1871, when after an enforced holding of his urine, for several hours, he had an attack of retention. This, after eight hours of suffering, was reduced by the introduction of a catheter. No especial trouble again, except frequent urination, until in 1874, when, after overwork and neglect he had a second retention 12 hours—relieved by anodynes. Another a week subsequent. Physician attempted to pass catheter, but failed; bled him from the arm *ad deliquium*, when he urinated. After this retentions were frequent, accompanied by severe vesical tenesmus, which finally produced prolapsus of rectum, great pain in region of bladder and kidneys, during attacks of retention, also severe pain in the eyes from straining. Repeated and prolonged efforts, by various medical men, to introduce a catheter, failed in every instance. Urination now every half hour and small in quantity and inability to completely empty the bladder. This at last *became much distended, and remained so*, notwithstanding frequent urination in small quantity. Suffered much from straining, in attempts to urinate, during subsequent time, up to Feb., 1877. Although repeated trials had been made by various surgeons, no instrument had been passed into the bladder since 1871, and, for previous three years, bladder habitually distended; protuberant.

At this time, a surgeon proposed to divulse his stricture, which was supposed to be in the deep urethra. No. 14, steel sound, after gentle and prolonged efforts, every morning for three weeks, preceded by a hot hip bath, was finally passed into the bladder. About a pint of urine followed the withdrawal of the sound. To this succeeded strong and painful twitchings of his limbs and severe pain in hips and over kidneys, also buttocks and thighs. This was followed very soon by a severe chill and fever and sweating. A similar attack of fever came on for 4 days succeeding, and he did not recover his former health for five or six weeks. After this any unusual fatigue brought on chills. May 19, 1877, he went to Washington, and came under the charge of Dr. Garnett. A careful attempt to introduce a small

catheter failed. On the 22nd, four days after, Dr. G. associated Dr. Lincoln with him, and the patient was put under the influence of chloroform and ether and careful persistent trials were made with a variety of instruments to enter the bladder, all of which were resisted. The bladder was then aspirated and over a quart of urine drawn off.

On the 31st, efforts under anæsthesia were again made, for three-quarters of an hour, with result as before. Bladder again aspirated, and about same amount of urine drawn as before.

On the 5th of June another attempt under same conditions. Same result. On the 10th, again; three pints drawn off. On the 17th, same.

Thus all efforts which appeared judicious, were made to enter the bladder, and the bladder was aspirated five times during the month. In the intervals the patient was out and able to take a little exercise; urinating every hour about a teaspoonful, sometimes with ease, at others with straining. Since August, 1876, has not been able to retain his urine when standing, and has worn a urinal habitually. Occasionally complete retention would occur, when, after application of hot cloths for a few hours, relief in the usual small degree would come. He left Washington for New York, on the 20th of June, 1877, having been last aspirated on the 17th. During his railway journey he urinated with unusual ease and freedom, but had an attack of retention on his arrival in New York. This was as usual relieved by hot cloths. This was the history given to me by the patient. He was tall, spare, with an expression of habitual suffering and irritability. Examination showed a large penis, measuring $4\frac{1}{4}$ inches in circumference; meatus small and pouting; bladder protuberant and dull up to within an inch of the umbilicus; no enlargement of the prostate.

Examination with the urethrometer. This was carried in to the bulbo-membranous junction and turned without discomfort up to forty. Clear to this size for three inches, then required to be turned down to twenty-eight. Three bands of stricture of this size were recognized within an inch; the urethra was then found free from that to within half an inch of the meatus, where it was twenty-five m.m. to the orifice. The history of the patient presented some points so similar to that of the case of chronic spasmodic stricture of seventeen years duration, published in the ARCHIVES OF SURGERY in 1876, previously alluded to, that I felt strongly inclined to consider the deep stricture which was evidently in the membranous urethra as spasmodic, I resolved to test this. I made no attempt to introduce an instrument into the bladder. Under the influence of the nitrous oxide gas administered by my associate, Dr. Bangs, I divided the meatus urinarius to 40 F., and in order to test the influence of this procedure I did nothing else.

On the following morning the patient announced that he had since the operation made his water more easily than for three years, but the amount was small and the bladder was not perceptibly diminished in size. This result made me still more confident of the spasmodic nature of the deeper obstruction. On this day, June 23, 3½ p. m., Mr. D. J., was placed fully under the influence of ether and with

the dilating urethrotome I divided the strictures, all of which were anterior to 4 inches, and the smallest 25 m. up to 42 m. I then passed, what I supposed to be a 40 solid steel sound *with ease through the urethra and well into the bladder* simply by its own weight. I then passed in a very large gum catheter and drew off two pints of urine. Dr. Bangs then called my attention to the fact, that, the first instrument passed was only 36. I then took No. 40, and passed it with perfect ease well into the bladder. Slight hæmorrhage followed the operation, no chill, and at one o'clock A. M., Mr. J. got up and urinated in a large stream, with complete ease, passing a full pint of urine and *completely emptying the bladder*.

From this time he had no further trouble, except the slight discomfort of urinating over the cut surface, for a few days, until it healed. At the end of a couple of weeks, he was, to all appearances, and as he said, "as well as ever in his life." He remained practically well for nearly a year, when he returned with some difficulty of micturition, but had had no retention or pain.

Examination showed a recontraction of the meatus to 34, also two bands, one at $3\frac{1}{2}$ and the other at four inches, also 34.

He was put under ether and the reconstrictions fully divided. An attempt to pass a full sized instrument was then made, No. 40 solid sound went easily to the bulbo membranous junction, but was arrested there. No force was used. No. 36 was then tried in the same manner gently and patiently; same result both with and without a pressure in the rectum. Then No. 30 was tried in the same way, then No. 20, then 10. Finally, down to fine filiform bougies in variety. This procedure occupied nearly an hour without success, when it was decided to make no further effort until healing of the wound had taken place, and all possible irritation, from this source had ceased.

The patient passed a good night; no chill; urinated three times with ease. The stream gradually decreased in force, however, for the next five days. When on Sunday, April 28, 1878, he called at my office. Urinated in my presence, in a slow, hesitating stream, but without pain. Placing him in the recumbent position on a lounge I attempted to pass a No. 5 filiform bougie. This, after a few minutes of gentle effort, slipped quickly and easily into the bladder, and then, suddenly, became *tightly lodged*. Recognizing this as a rare example of unmistakable spasmodic stricture, I at once sent for my distinguished surgical friend and neighbor, Dr. George A. Peters, to verify the correctness of my conclusions. Dr. Peters came at once and appreciated the facts above stated, especially the distinct grasping of the filiform bougie by the compressor urethra muscles. Dr. P. withdrew the bougie with some difficulty. No farther procedures were instituted. On the following day the patient complained of great nervous exhaustion, which as he stated, came on soon after the withdrawal of the filiform, the day previous. This, however, passed off during the day, and nothing worthy of note occurred until May 4th, when the wound of operation having healed, it was decided to anæsthetise the patient, and again attempt the passage of a sound.

Dr. Bangs, my associate, and Drs. J. H. Swasey and W. T. Spencer were present. After bringing the patient to unconsciousness, although some spasmodic movement of the limbs was present. I attempted to pass a large sound. In this I failed. Smaller and smaller sizes were tried, until the small filiform, patiently used, was resisted. I then directed the patient to be put as thoroughly as possible under the influence of the anæsthetic. In about ten minutes complete muscular relaxation took place for the first time. I then again took up the solid sound, No. 38, and passed it with ease well into the bladder. This was readily followed by No. 40. Urination with ease in full stream four hours after the passage of the instruments. Day following, urinating well; feeling well; temp. $101\frac{1}{2}$. Record May 13 says "Mr. J. feels well—vesical catarrh (from which he had been suffering more or less for several weeks) declining. Makes his water readily in a full strong stream every four or five hours." Before leaving for his home Mr. J. was anxious to have another passage of the large instrument and this was accordingly done without difficulty. It was followed by a severe urethral fever which lasted for several days, prostrating him very much, but his urination was easy and natural, not oftener than once in five or six hours, and thoroughly emptying the bladder. He gradually improved in his general health and left for Washington about the middle of May. A week after he wrote that he had had some return of his urinary difficulty, but was going South. A few months later I received a letter from him commending a relative to my care but not referring to his own case. Since then, although I have recently addressed a note of enquiry to him, I have not yet heard in regard to his condition.

This interesting case, appears to me to prove, not only the reality of that form of chronic spasmodic stricture which I have, (from its analogy to *vaginismus*), venture to term urethrimus, but it also demonstrates its dependence upon anterior strictures, or even less prominent causes of irritation.

It demonstrates the fallacy of the claim that spasmodic stricture may be readily distinguished from organic stricture, and that the administration of ether necessarily causes the complete relaxation of reflex spasm. That it usually does so I admit, but in cases like that of the 17 years spasmodic stricture and the one just related, not only is this not the case, but even after the complete division of anterior stricture, the most profound anæsthesia is required to cause it to give way.

A careful perusal of the case will suggest several other remarkable facts which this case teaches. I have been particular in its recital, as in previous cases, to introduce names and dates wherever it could with propriety be done, and would suggest that this case is still open for investigation, and that besides the information which can be afforded by living witnesses, quite a mass of authentic documentary evidence is at the disposal of any enquiring or doubting medical man.

Dr. Sands tells us truly that "the science of medicine, although rapidly advancing, can reckon more innovations than discoveries." In closing this paper I would like to suggest, that while the above is

manifestly true, yet *without innovations no discoveries are possible.*

108 West 34th st., April 2th, 1879.

EDUCATION IN SANITARY MATTERS.

BY
H. H. KANE, M.D.
Cincinnati, O.

"NEC SCIRE LAS EST OMNIA."

The trite old saying that it is not permitted us to know all things, should teach us also that we should study well that which we may know. The advance of science has, in the last century, been so rapid, such entirely new fields rich in food for thought and experiment have been opened to us, and so many old fields hitherto comparatively barren made to bud and blossom, and been cut up into so many lesser ones, that specialists have of necessity grown up among us. No one man can at the present day compass the whole field and do it thoroughly. We are no longer astonished at the man who many years ago wrote a book of some fifteen hundred pages on that little animal, the flea.

Admitting the necessity for specialists in certain branches of science we must, however, raise our voice against the growing apathy of many as to the results of the specialist's research. While we are not expected to go into the minutiae of every subject, we are expected, as scientific men to acquaint ourselves with the general principles involved and the chief facts upon which they rest, in so far, at least, as they bear upon our line of study or profession. A physician wholly ignorant of ophthalmology or orthopedic surgery, because there are specialists who devote their entire attention to these diseases, is culpably ignorant. How much more so then a physician who pays no attention to a subject that while necessarily in the hands of specialists exercises a daily and even hourly influence on his practice! I refer to *sanitation*.

This question is one that is being agitated both in our daily papers and the journals specially devoted to the subject. The question of the day with the people seems to be "How shall we prolong our lives and do away with, wholly or in part, the swelling list of preventible diseases?" The words and works of Dr. Richardson, of London, the munificent acts of Mr. Peabody, and the discussion of questions of sanitary science consequent thereon, seem to have fully awakened the people to the necessity of knowing something for themselves. I think I can safely say that at no time has there been so widespread and lively an interest in the subject as there is at present.

There seems to be no subject bearing so directly upon both the cause and treatment of disease that has received so little attention at the hands of the profession at large as this one. True, there are some few here and abroad who have studied and are interested in the matter, but the activity of a few cannot balance or excuse the lethargy of the many. Our education as laymen, and then as medical men is seriously at fault, for it makes no provisions by which we are fitted to at once grapple with or understand the subject; nay, more, it does not even teach us the necessity of pursuing such a line of study. The study of prophylaxis (——— to guard beforehand) is quite as important as that of therapeutics.

Dr. John Billings, in an address delivered before the Johns Hopkins University, Baltimore,* says

"The public are disposed to look to physicians for advice and information on these matters, but it should be noted that the cause of education and routine of duties of the average practitioner are little fitted either to call his special attention to such subjects or to render him specially competent to investigate or decide upon the many difficult problems which they present.

"It is true that he is somewhat better fitted than other professional men to enter upon their study; he is not supposed to look on disease as a mysterious entity, the messenger of a special providence, or to rely on a day of fasting and prayer to ward off the cholera, and he knows from practical experience that it requires something beside filth to produce most diseases, but his studies have been directed towards therapeutics rather than prevention, and when he is consulted the mischief has usually been done, and he has enough to think of in seeking means to remedy the result.

"As is implied in what I have just said the ordinary curriculum of medical education is arranged with very little reference to the causation of disease, or at least as to remote causes; and when the doctor is called in unless the cause continues to act, rendering it necessary that it shall be removed before his treatment becomes of use, he usually pays little attention to it.

No doubt he often speculates as to what may have produced the trouble he is striving to remedy, but when it comes to a careful, minute, scientific investigation to determine this cause, he usually has neither sufficient notice, time nor knowledge to make it. Is it a matter connected with defective sewerage in relation to—suppose we say diphtheria? This involves questions of sanitary engineering, the work of the plumber, the composition of sewer gases and tests for them, and a good practical knowledge of the use of the microscope in connection with the modes of development of the lower organisms, so minute that the highest powers are required for their study. A man may be a very good practitioner without any of this knowledge, and, as a matter of fact, very few physicians have such knowledge."

I have quoted Dr. Billings thus largely, and I regret that space does not permit giving his whole article, to bear out what I have said and what I am about to say in regard to the need for a more thorough study of the subject of sanitation by physicians. For us to talk of sewerage, ventilation, or prophylaxis without having at least a genuine knowledge of the subject would be as absurd as to attempt to write upon or treat a disease, whereof we knew nothing but a few symptoms, having had no previous acquaintance with anatomy, physiology or pathology.

There is certainly no class better fitted or better able to cope with these subjects and carry the war into the enemy's camp than physicians, but that the best results may be reached there must be something more than giving the subject intermittent attention. I agree fully with Dr. Billings, who so ably

* Plumber and Sanitary Engineer, April, '79

brought this subject into general notice, that there should be a chair in every respectable college devoted to the subject of sanitary science, and that a special degree or certificate should be granted for passing a creditable examination in the same. The connection between prevention and cure is too intimate to admit of their separation, and if it becomes necessary, as Dr. Billings seems to think, to combine in the sanitarian a thorough knowledge of medicine, law and sanitary engineering with all its details, it is none the less obligatory that physicians study and understand the sanitary law sufficiently well to follow such men in all they may do and say, and be able to practically apply their suggestions.

This is a day, as we have said, of awakened interest amongst the people, on this subject, a day of popular medical lectures, of health primers and tracts, of sanitary journals, of newspaper discussion, of scientific matters that concern the masses. The people, like their forefathers at the end of the monastic rule, are just beginning to think and study for themselves; the one in regard to mental and religious things, the other in regard to matters concerning health and longevity. Had people then as now been taught what they wish to know, had the monks recognized the signs of the times and awakened to the reality that the Sun of monastic rule was fast setting, and while instructing, have still, by superior attainments led the masses on to further knowledge, the leaders would have exchanged their dogmatic for a more liberal supremacy and the history of the world would have been very different from what it is.

Scientific advance demands of physicians, above all others, a thorough knowledge of this important matter. That it is important may be judged from the following, Mr. R. Scott Burn says:

"Within the shores of these islands there are thirty millions of people, who have not only supplied her armies and set her fleets in motion, but have manufactured innumerable products and are employed in the investigation of scientific truths of the highest importance to the human race. Those people do not live out half their days; 140,000 of them die every year unnatural deaths; 280,000 of them are constantly suffering from actual diseases which do not prevail in healthy places; their strength is impaired in a thousand ways; their affections and intellects are disturbed, deranged and diminished by the same agencies."

Again, as to the pecuniary side of the question, Mr. Burn, *quoting from the Registrar General's report, says: "Let it be remembered that a sickly population is one of the most costly burdens of a state. Health is the poor man's capital in trade; and whatever deteriorates that entails a direct loss and eventually a heavy money charge upon the community. The enormous amount of poverty and destitution in this country, and the consequent necessity for an import of nearly £8,000,000 sterling annually for its relief, are in a great measure due to the pauperising effects of preventible disease."

[Sanitary science as applied to the healthy construction of houses in town and country. Glasgow and London, 1872, p. 11.]

* Op. cit., p. 14.

"It is proved that the money lost through typhus fever alone, in the metropolis, during the five years, 1843-1847 was £1,328,000, and that this might have been prevented."

In the money cost of sickness must be considered not only the actual expense of the illness, but the loss of what the workman would earn and produce, were he able to work or had he not died.

The necessity for a more thorough knowledge of sanitary affairs is spoken of by Dr. Billings in its relation to the collection of statistics for the study of various factors in the production of disease. The doctor, than whom there is no better informed man on the subject in this country, shows that statistics of mortality, while very valuable, are by no means to be depended on alone for "a scientific test of the value of measures taken to prevent disease,"—"for although we may be able to determine that a particular system of sewerage has diminished the mortality of a town, we can infer very little as to its effect on the sickness." He quotes Dr. Rumsey* as saying that there are grounds for belief that "a diminution in the rate of mortality, will be found to co-exist generally with an augmentation of the rate of sickness."

To obtain full and reliable reports for the careful study of disease, endemic and epidemic, the reporter must thoroughly understand many questions that are never taught in medical schools and seldom studied by physicians out of them.

Quoting from Dr. Billings' valuable paper again: "It is the same with regard to many other questions affecting the general health—the steadily increasing pollution of our water supplies, the hygiene of schools, the construction and management of municipal hospitals, the regulation of prostitution, the prevention of the sale of improper or adulterated articles of food, of dangerous and unhealthful trades and occupations—all are subjects with regard to which much knowledge is needed, and subjects of which very few men possess all the knowledge that is even now existing and available."

As I have said before, even if we are to have specialists in this branch, men thoroughly conversant with all the details of medicine, chemistry, physics, plumbing, sanitary engineering and the legal aspects of sanitary legislation, it is none the less necessary that members of our profession should devote enough time to the question to become conversant with at least its general principles and major facts, and be able to follow the work of these specialists intelligibly.

Judging from the apathy of many physicians on this point, one would think that they had swallowed and digested Malthus, and believed that epidemics and accidents were only necessary factors in preventing over population, and that their work was not to prevent but to cure disease. Our success in curing is so very unsatisfactory that if we can accomplish anything by prophylaxis we had better give it, at least, a little of our valuable attention.

* Rumsey, R. W., essays and papers on some Fallacies of Statistics, London, 1875, p. 58.

HOSPITAL RECORDS.

ST. VINCENT'S HOSPITAL, NEW YORK.

REPORTED BY J. A. BURKE, M. D., HOUSE SURGEON.

TWO CASES OF FRACTURE OF THE TWELFTH RIB.

CASE I.—THOS. KEE entered the hospital Feb. 3d, 1879. He was 39 years of age; native of United States; married; a mason by trade. While working on a scaffold some 15 feet from the ground, the plank on which he was standing broke, and he fell to the ground. He came down on his feet, but staggered and fell, striking his left side against an iron railing.

He was brought to the hospital soon afterwards, and complained of severe pain in the left side. On examination the 11th and 12th ribs of that side were found to be fractured, the diagnosis being easily made as there was only a slight amount of swelling.

The treatment consisted of the application of two wide strips of adhesive plaster drawn tightly around the body, over the seat of the fracture, and a bandage outside of this, the object being to prevent the expansion of the chest in that region.

He complained of some pain on inspiration for four or five days, and for this anodynes were administered. After this he was comparatively easy.

The dressing was reapplied on the 8th. He remained in the hospital till the 18th, and as he suffered no pain or inconvenience he desired to go home.

He was discharged.

There was more motion at the point of fracture than was natural, but no crepitus.

CASE II.—ANNIE BURKE entered the hospital Feb. 7, 1879.

She was 28 years of age; native of United States; married; and a domestic.

While washing windows, about 8 feet from the ground, the step on which she was standing slipped, and she fell, and struck on the end of a window blind before reaching the ground.

She was brought to the hospital by an ambulance, and complained of great pain in the right side. Upon examination the 12th rib on the right side was found to be fractured. There was slight swelling and ecchymosis over the seat of injury. Two strips of adhesive plaster and a bandage were drawn tightly around the body, over the seat of fracture, to prevent expansion of the chest at that point.

These were reapplied on the 12th. She complained of some pain for the first day or two, but felt none afterwards. She remained in the hospital till the 17th, when she was discharged. There was only slight tenderness and pain, and no crepitus when she left.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY JNO. A. WYETH, M.D.

A NEW METHOD OF STERILIZATION.—J. KOCKS.

The author starts out with the proposition that there are many cases where affections of the lungs,

heart or kidneys, narrow pelvis, etc., render pregnancy and labor fraught with danger, and make a method of preventing the possibility of pregnancy very desirable. This he seeks to do by an operation which he calls "sterilization." By this operation he expects to make the woman permanently and completely sterile. This he thinks is better than oft-repeated premature artificial abortions, or the numerous common methods of preventing conception, with the attendant baneful results on the nervous systems of both parties.

The operation consists in *obliterating the uterine orifices of the Fallopian tubes*, so as to prevent the ovum from descending, or the spermatozoa from ascending to meet it. This obliteration he proposes to accomplish by cauterizing the parts with the galvano-cautery, using an electrode specially constructed for the purpose. The burning point of the platinum is about one cm. long, and the curve such as to enable the operator to easily carry the instrument to the neighborhood of the orifice of the tubes. The author does not consider it necessary that the orifice itself should be actually touched, but thinks if the instrument is brought into its immediate neighborhood, that the cautery effects will extend so far, that when cicatrization takes place the tube will be closed. By using the galvano-cautery the instrument can be introduced cold and heated when in position, so that its effects can be limited. He has operated on one case, the patient having some disease of the lungs. She was within eight days of her menstruation. No anæsthetic was used. The point being in place, the current was turned on and kept on for forty-five seconds on the left side and one minute on the right. No bad symptoms followed, and the patient made a good recovery.

The author adds: "I do not deny that there is a lack of certainty that the operation will accomplish its end. Proof can only be obtained from an autopsy, since, even if sterility follow, it may be due to other causes."—*Centralblatt für Gynekologie*, 1878, No. 26.—*Archives of Medicine*.

DAWSON.—STAB WOUND OF BRAIN.—DIVISION OF THE LEFT MIDDLE CEREBRAL ARTERY.

Patient, sailor, æt. 25. During an affray received severe stab wound. Unconscious; right pupil more contracted than left. Paralysis right arm and leg. No paralysis of face. Profuse hemorrhage from wound just above the left ear. As the squamous portion of the temporal bone was penetrated, it was supposed that the bleeding proceeded from the middle meningeal, and to secure this a button was removed by the trephine, when it was evident that the hemorrhage proceeded from the brain substance. Pressure upon the carotids did not arrest hæmorrhage. Wound covered with lint and compression by sponge; bleeding continued. Death in fifteen hours; three convulsions of left side of body just before death. *Autopsy*. Stab wound of middle lobe of cerebrum, terminating $\frac{3}{8}$ inch below the third ventricle. The left middle cerebral artery was divided one inch from its origin. No extravasation in ventricles.—*Ibid.*, p. 45.

THE HOSPITAL GAZETTE.

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

EDWARD J. BIRMINGHAM, A.M. M.D. *Editor*
FREDERICK A. LYONS, A.M. M.D.

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NEW YORK, SATURDAY, APRIL 19TH, 1879.

EDITORIAL.

LEGISLATION ON CONTAGIOUS AND INFECTIOUS DISEASES.

The profession has wisely determined to disagree among themselves, doctor-like, says tradition, as to some of the reported causes of yellow fever. Time will give opportunity for extended observation, and progressing science will aid to weigh the elements more nicely, and decide with more exactness; which is preferable, since it is the only practicable resource! The question is almost an abstraction at best, since invariably preceding conditions are as good proofs of identity in disease as causes would be. Whatever points out unmistakably the nature and character of a disease, or signals its approach, be it a condition precedent or an admitted cause, supplies the practitioner with the knowledge valuable to him at all times.

When we shall have reached the point that we understand fully the causes of yellow fever, its days of terror will have ended; it will be easily controlled and guarded against. But with its hideous threatenings, made more hideous by recollections of its late triumphant career, so close upon us, we are rejoiced that proper legislation in Congress, ignoring as futile the discussion of causes, has been undertaken and has made astonishingly rapid progress. We refer to House Bill 3, presented by Hon. Casey Young, of Tennessee, at the request of the best sanitary authorities. We append a synopsis.

Sec. 1st makes the entry of any vessel from foreign ports into our ports unlawful unless all our sanitary laws have been complied with, fixing a penalty that may reach five thousand dollars.

The second section makes it obligatory upon such vessels to secure duplicate consular clearances before starting to our ports.

The importance of the next section demands its publication, as a whole.

Sec. 3. The National Board of Health shall make all needful rules and regulations authorized by the laws of the United States for the prevention of the introduction and spread within the United States of contagious or infectious diseases, which shall be uniform and subject to approval by the President, and shall be charged with the execution of the same, and of the provisions of this act and all other laws of the United States for the prevention of the introduction and spread of contagious or infectious diseases, and all quarantine regulations established under the authority of said laws in respect to all vessels and vehicles engaged in commerce with foreign nations and among the respective States, whether by land or water.

The fourth and fifth sections give the Board of Health power to direct our consuls to report the sanitary condition of their stations, and to make through inspection of vessels bound hitherward.

The sixth section provides for temporary inland quarantine stations, when epidemics prevail in our own country.

The seventh section refers to the harmonious working of the National, the State and Local Boards of Health.

The ninth section empowers the National Board of Health to make a report upon contagion and infection among the domestic animals in the country, and the tenth section orders the thorough inspection of all animals, being shipped or imported, at the shipping port.

Six hundred and fifty thousand dollars is appropriated to be disbursed by the National Board of Health, to carry out the provisions of this act.

There is but little doubt of the passage of the measure, having been introduced by unanimous consent, read twice, referred to a Select Committee, and printed, within six days. It is experimental, therefore may prove clumsy in its operation; but there is an urgency at this time for such a measure, that will not permit criticism, unless remarkably well founded. This measure has been carefully considered, and will serve a good purpose as a foundation upon which experience will build more at leisure.

SELECTIONS FROM JOURNALS.

CAUSES AND TREATMENT OF PHAGEDÆNA.

In the *Presse Medicale Belge*, Nov. 10, 1878, Professor Thiry's views on chancreous phagedæna are referred to in connection with the report of a case lately under his care in the Hôpital Saint-Pierre. Thiry considers that phagedæna is not due to any particular constitutional state, nor is it related to gangrene. It is purely local, and results from increased activity

of the virus accidentally set up during the evolutions of the sore. This increased activity is, according to Thiry, due to one or other of the following three causes, viz., 1. More or less intense inflammation of the base and periphery of the chancre; 2. Exaggerative sensibility of the chancre; 3. A torpid state of, or want of vitality in, the chancre. The varieties of phagedæna are accordingly arranged as follows: 1. Phagedæna from excess of inflammation; 2. Phagedæna from excess of sensibility; 3. Torpid or atonic phagedæna. The gravity of the case will depend upon the extent to which either of the three causes is in operation.

The treatment recommended differs somewhat according to the nature of the sore. While methodical cauterization is necessary in all, the subsequent dressing in the first form should consist in soothing fomentations and regular compression; in the second, or irritable variety, preparations of opium or morphine should be applied, combined with gentle pressure; in the third, or atonic form, a solution of tartrate of iron is most useful.

As a caustic, Thiry speaks very highly of an ointment composed of 2 grammes (30 grains) of cyanide of mercury to 10 grammes (150 grains) of lard.

A male, aged 25, was admitted into Saint-Pierre on June 17, 1878, with a spreading phagedenic chancre of atonic variety. The sore had been in existence for four months; it commenced at the frænum, and on admission had perforated and almost wholly destroyed the prepuce. There was no syphilitic induration. The treatment consisted in deep cauterization of the whole ulcer on eight consecutive days, and the application of a solution of tartrate of iron four times daily. The penis was bandaged and kept up on the abdomen. After eight days, the aspect of the ulcer was almost that of a simple sore. The healing process soon became general, and the patient was discharged from the hospital, cured, at the end of July.—*London Med. Record*, Dec. 15, 1878.

STRICTURE OF THE RECTUM CAUSED BY PROLAPSUS.

M. Lannelongue (*Société de Chirurgie*, December 11, 1878), called attention to some facts which might throw light upon the pathogenesis of some strictures of the rectum, situated about $6\frac{1}{2}$ centimetres above the anal orifice, forming a kind of annular valve, with the free border supple, but its adhering border resting on a somewhat indurated base. A child was brought under his notice with prolapsus of the rectum, and some inflammation of the mucous membrane of the protruding gut. Many months afterwards the child returned with a bridle cicatrix on the posterior wall of the rectum, partially obliterating the lumen of the intestine.

Another child had been brought to him in a similar condition. The case had been watched. An examination made later on, revealed an ulcerated surface; this granulated, and gradually formed a valvular stricture. In adult patients, where stricture exists from an unknown cause, inquiry should be made as to the existence in infancy of rectal prolapse.—*London Medical Record*, Feb. 15th, 1879.

CONTAGIOUSNESS OF TUBERCULOSIS.

Dr. Reich, of Mulheim, reports (*Berlin Klin. Woch.*, Sept., 1878), a singular series of cases in which tuberculosis seemed to be communicated directly, from mouth to mouth, to a number of children by a phthisical midwife. There were in Neuenbourg two midwives, Mme. R., and Mme. S., the latter being distinctly phthisical with an abundant purulent expectoration. Dr. R., having one day delivered a patient by turning, noticed the nurse, S., sucking the mucus from the mouth of the child, and blowing directly into the lungs, mouth to mouth, to establish respiration. This child, at the end of three weeks began to droop, and died in three months of tubercular meningitis. Shortly afterwards two other children, under the care of the same nurse, died of the same disease. Dr. R., having his suspicions in this way aroused, made inquiry, and found that from 4th April, 1875, to 10th May, 1876, seven children, besides the three already mentioned, all attended by Mme. S., had been carried off by tubercular meningitis within their first year. Nothing of this kind happened in the practice of Mme. R., during the same period. In July, 1876, Mme. S. herself died of consumption. It was well known that this nurse was accustomed to clean the children's mouths of mucus, in the manner above described; she was also very kind to her little patients, constantly kissing and caressing them.—*Glasgow Medical Journal*, Feb., 1879.

TREATMENT OF INFANTILE PARALYSIS.

Dr. Jules Simon gives, in the *Gazette Méd. de Paris*, January 11th, 1879, the following views on this subject. The treatment must vary according to the stage of the disease, when the patient is first seen. If the child be feverish, but not delirious or paralysed in every member, the first thing to do will be to give the child a steam-bath in his bed. M. J. Simon uses a spirit-lamp with several wicks, which is placed on the floor, and covered by a large funnel which communicates through a hose of India-rubber, or some other material, with the interior of the bed. Great care must, of course, be taken not to scald the patient, and, after the perspiration has lasted four or five minutes, the tube must be removed. At the same time, diaphoretic remedies must be freely given. This treatment has to be continued, at least as long as the fever lasts. At the same time, the child must be dry cupped along the spinal column, and a cooling-draught given. All other complications, such as diarrhoea, sleeplessness, convulsions, must be got rid of with all possible energy, and chills avoided. About two or four days later, when the disease enters on its second stage, the patient is to be allowed to get up; the paralytic affection is localised, and must be treated by local friction with aromatic spirits and with systematic rubbing. Mild electric currents must also be employed, beginning at the upper part of the spine and passing down the whole length. It must, however, be borne in mind that, unless the reophores are well covered up and wetted, very severe injuries may be caused to the skin. At the same time, all tonic agents available must be employed. The child must be kept as much as possible in the open air and take sea baths or sulphur-

ous baths. It must take quinine—cod-liver oil, if it should be winter—and arsenic in summer; a small dose of nux vomica before its meals, and black coffee after them. If the child object to taking the nux vomica, it may be rubbed with the following ointment: strychnine, five *decigrammes*; hog's lard, thirty *grammes*. The paralysed member must be strengthened by gymnastic exercises, such as dragging toys on wheels, or by tying the leg to some object by a piece of india-rubber tubing and making the child pull at it. In short, every object which would stimulate the muscles or the nervous system must be employed. If the child should, however, already be deformed through the paralytic affection, orthopædic appliances should be used at the same time with tonic and electric treatment. M. Simon has always found this treatment answer very well in every case where he has had to apply it.—*Brit Med. Jour*

DIAGNOSIS OF INTRA-OCULAR TUMOR BY PROBING.

Fraenkel¹ observed in the eye of a girl of sixteen an elevation of the retina, which extended in the form of a grayish fold from the optic disc downward and inward, till its anterior end was lost to view. On each side of this elevation was a shallow separation of the retina. The central fold near the disc was little wider than the latter, but gradually doubled in width as it ran forward; it showed no movement. The media were clear; central vision = 1; a defect in the field corresponding to the separation. During six weeks' observation the only change consisted in an increase of prominence of the fold. To decide if a solid growth were present, a cataract needle was passed into the eye six mm. to the outer side of the cornea, and directed by help of the ophthalmoscope through the vitreous toward the fold. Sudden clouding of the cornea, probably produced by pressure or dragging, caused failure of the first attempt, but a second, two weeks later, was successful, and the operator could satisfy himself, both by touch and sight, that the grayish ridge offered firm resistance to the needle, and could even feel along one side of the growth. The eye was enucleated, and a gliomatous development between the layers of the retina found which reached from the disc to the ora serrata in the form of a narrow band, widening toward its anterior extremity, and projecting one and one half to two mm. into the vitreous.—*Boston Med. Jour.*

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week mixtures for diseases of the digestive organs. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

MIXTURES FOR DISEASES OF THE DIGESTIVE ORGANS.

56. *Anise Cordial* (Inf. H.)

R. Infusi Anisi ($\frac{3}{2}$ to O 1)....
Genevæ (Gin)..... aa fl. $\frac{3}{4}$
Mix. Dose: half a teaspoonful.

57. *Diarrhœa Mixture*.

R. Tinct. Opii.....
" Capsici.....
" Rhei Arom..... aa p. c.
Spts. Menthæ Pip.....
" Camphoræ.....
Mix. Dose: 20-40 min. (Dr. Ruschenberger.)

58. *Diarrhœa Mixture* (H. I. H.)

R. Tinct. Capsici..... fl. $\frac{3}{4}$
" Catechu.....
" Kino.....
" Krameriæ..... aa fl. $\frac{3}{4}$
" Opi..... fl. $\frac{3}{4}$
Spts. Menth. Pip..... fl. $\frac{3}{4}$
" Camphoræ.....
Aque..... aa fl. $\frac{3}{4}$
Mix. Dose: 30-60 minims.

59. *Hope's Mixture*.

R. Acid. Nitrici..... m. 8
Tinct. Opii..... m. 40
Aque Camphoræ..... fl. $\frac{3}{8}$
Mix. Dose: a tablespoonful. In Dysentery.

60. *Hot Drops* (C. H.)

R. Tinct. Opii.....
" Capsici.....
Spts. Camphoræ..... aa fl. $\frac{3}{4}$
" Menthæ Pip.....
Aque..... fl. $\frac{3}{4}$
Mix. Dose: a teaspoonful.

61. *Mist. Aloes Co.*

R. Aloes Socotr.....
Sodii Bicarb.....
Glycerine.....
Spts. Lavand Co..... aa fl. $\frac{3}{4}$
Ol. Menthæ Pip..... m. 25
Aque..... O 1
Mix. Dose: 1 to 2 tablespoonfuls as a purgative;
1 to 2 teaspoonfuls as a stomachic and tonic.

62. *Mist. Anti-Emetica* (C. H.)

R. Creasoti..... m. 12
Acid. Hydrocyan, dil..... m. 30
Pulv. Acacia.....
" Sacchari..... aa $\frac{3}{4}$
Aque q. s. a. d..... fl. $\frac{3}{4}$
Mix. Dose: a teaspoonful.

63. *Mist. Ferri et Bismuthi*.

R. Ferri et Bismuthi Citr..... $\frac{3}{4}$
Aque..... fl. $\frac{3}{4}$
Mix. Dose: a teaspoonful.

63 (b). *Ferri et Bismuthi Citras*.

Contains equal parts of Citrate of Bismuth and Ammonia-Citrate of Iron. It forms brownish red scales, very soluble in water.

Dose : 1 to 2 ℥ in dyspepsia, gastric intolerance of consumptives, etc.

64. *Mist. Olei Ricini* (O. D. P.)

R. Olei Ricini.....	fl. 3 4
Mucil. Acacie.....	3 4
Tinct. Opii.....	fl. 3 2
Tinct. Rhei Arom.....	fl. 3 4
Aquæ Menthæ Pip. q. s. ad.....	fl. 3 4

Mix. Dose : a teaspoonful for Children, in Diarrhoea. (Dr. Bosley.)

65. *Mist. Opii Rhei et. Camphoræ* (O. D. P.)

R. Tinct. Opii.....	
Tinct. Rhei Arom.....	
Spts. Camphoræ..... aa	fl. 3 1/2
Tinct. Cardam. Co.....	fl. 3 2
Aquæ Anisi q. s. ad.....	fl. 3 4

Mix. Dose : a teaspoonful for Children in Diarrhoea. (Dr. Swezey.)

66. *Mist. Rhei Co.*

R.	1 fl. 3 contains
Ext. Rhei Fl..... m. 256....	m. 1
Ext. Ipecac. Fl..... m. 51....	m. 1/8
Sodii Bicarb..... grs. 512....	grs. 2
Glycerine..... fl. 3 12....	fl. 3 3/8
Aq. Menthæ Pip. ad. O 12....	fl. 3 3/8

Mix. Dose : 1/2 to 1 teaspoonful two or three times a day for Children. (Dr. Squibb.)

67. *Mist. Rhei et Calcis* (O. D. P.)

R. Tinct. Opii Camph.....	
Syr. Rhei Arom..... aa	fl. 3 1/2
Aquæ Calcis.....	fl. 3 2

Mix. Dose : a teaspoonful for Children in Diarrhoea. (Dr. Ackermann.)

68. *Mist. Rhei et Sodæ* (B. H.)

R. Sodii Bicarbon.....	1
Pulv. Rhei.....	1/2
Spts. Menthæ Pip.....	fl. 2
Aquæ q. s. ad.....	fl. 4

Mix. Dose : a tablespoonful.

69. *Mist. Rhei et Sodæ* (O. D. P.)

R. Sodii Bicarb.....	3 1
Extr. Rhei Fl.....	
Spts. Menthæ Pip..... aa	fl. 1
Aquæ q. s. ad.....	fl. 4

Mix. Dose : a tablespoonful.

70. *Mist. Sodii Bicarb.* (O. D. P.)

R. Sodii Bicarb.....	3 4
Tinct. Zingiber.....	fl. 3 2
Tinct. Gent. Co.....	fl. 1
Aquæ.....	fl. 5

Mix. Dose : two teaspoonfuls.

71. *Squibb's Cholera Mixture.*

R. Tinct. Opii.....	
" Capsici.....	
Spts. Camphoræ..... aa	fl. 1
Chloroformi.....	fl. 3
Alcoholis q. s. ad.....	fl. 5

Mix. Dose : 20-40 minims.

72. *West's Mixture.*

R. Ol. Ricini.....	fl. 3 2
Pulv. Acacie.....	
Pulv. Sacchari..... aa	3 2

Tinct. Opii..... m. 21

Aquæ Cinnam. q. s. ad..... fl. 5 4

Mix. Dose : a teaspoonful for Children in Diarrhoea.

NEWS ITEMS AND NOTES.

Swiss Legislation Regarding Color Poison.—The authorities of Zurich have prohibited the use of all coloring matters containing compounds of lead, arsenic, copper, chrome, zinc, antimony, bismuth, and mercury for coloring and decorating isculents, wearing apparel, packages for chocolate, coffee, tea, chicory tobacco, etc., toys, covers and cushions of children's carriages, carpets, curtains, window blinds, lamp-screens, wafers, and earthenware table services. Poisonous organic matters, such as gamboge, picric, and picramic acids, and the aniline and phenol colors, are not to be used in coloring confectionary, wines, liquors and syrups.

A New Subject for a Chromo—A reinforcement to the number of about three thousand recruits has just reported to the grand army of doctors; the offering for the year from the innumerable medical colleges of our country. Would it not be gratifying, could we extend our martial simile and picture the enemy, fell disease, retreating, retiring, despairing? Our gratification would be an excellent subject for a chromo.

The Sanitary State of St. Petersburg.—At a recent meeting of the municipality of St. Petersburg, the question of cleansing the city was under consideration. From the proceedings of the meeting it would appear that the large sums devoted annually to such works of cleansing as were executed, were spent almost wholly upon the streets and open places—to the maintenance, in fact, of a neat and orderly appearance of the city, and not upon the essentials of the removal of domestic filth. So far as the latter form of cleansing was affected it had to be done at the cost of the householders. As a consequence, very much of the noxious matters inevitably formed in inhabited places, found a way into the canals of the city, canals from which ice is collected for the preservation of provisions, and for using with drinks; the wharves, moreover, were, in effect, open privies from which the filth also got entrance into the canals. Now it happens that a considerable proportion of the population of the city has no other water-supply than what is derived from these canals, which are, in fact, sewers containing, moreover as it would appear, somewhat strong sewage. The augmentation of sickness and mortality in the city at the approach of spring has arrested the attention of the Emperor, and it is assigned to the anxiety which has been displayed by the municipality to clear the streets of snow. To effect this the whole strength of the scavenging staff has been needed, and even the comparatively slight amount of sanitary work it does has fallen into arrear. This excessive regard to the process of whitewashing the sepulchre having, however, come to Imperial notice, it is probable that the sanitary claims of the city in the work of scavenging will now be listened to attentively by the municipality.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE HOSPITAL GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the circulation a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CLINICAL LECTURE ON GLOSSO-LABIO-LARYNGEAL PARALYSIS—SYPHILITIC BRAIN TUMOR—IDIOCY—MYSOPHOBIA.

Delivered at the Medical Department of the University of the City of New York.

WILLIAM A. HAMMOND, M. D.,

Professor of Diseases of the Mind and Nervous System.
(Reported for THE HOSPITAL GAZETTE.)

This is the man whom I brought before you last Thursday. Since then I have had him at my office and have gone over his case very thoroughly. His clinical history is as follows, viz: he has suffered for some time with severe pain in his head, and has some slight difficulty in walking. There is weakness experienced in his arms and in the muscles of the lower part of his face. He has some difficulty in pronouncing those words which require the delicate use of the lips and tongue, i. e., the labials and lingual. Of late his deglutition has been somewhat interfered with. His present troubles began some twelve months ago.

Observe, as he speaks, how slow and with what great hesitancy his speech issues forth. He has not had quite so much pain in his head during the past few weeks. He is unable, as you see, to project his tongue as far out of his mouth as is natural, nor can he lift it up and place it in apposition with the roof of his mouth. There is no doubt then, but that one of the most prominent of his symptoms is paralysis of the tongue. The tongue, as all of you have, no doubt, learned by this time from the Professor of Physiology, is concerned in managing the alimentary bolus which is kept between the teeth by the conjoint and opposing influence of the tongue and the buccinator muscles. Here the food is not kept under the teeth owing to the partial paralysis of the tongue and buccinators, so that the man is obliged constantly, while he is eating, to put his finger into his mouth and clean out the space between the teeth and the cheeks, which becomes plugged up and uncomfortably distended with the masticated food, as is the case in facial paralysis.

His sleep is sometimes good and sometimes bad. In stooping, you notice that he is obliged to let himself down carefully on the left side, owing to a slight tendency to hemiplegia. He tells me he has to get up at night to pass his water, so that there must be some slight relaxation of the sphincter. Old people are generally obliged to get up at night to urinate, but not a person so young as this man, who is only in his thirty-second year.

He came up to my house, as I told you, last Sunday, and I found very well marked anæsthesia on both sides of his face. I had to separate the arms of the æsthesiometer to double their usual extent in order to make him sensible of the two points. You notice that he is in the habit of sitting with his mouth half open, giving him a very silly, idiotic expression of countenance. This is due, no doubt,

to the weakness of the muscles which support the lower jaw. In facial paralysis there is not such a look of deadness about the lower part of the face as you see here. Now and then a very decided tremor of the upper lip is apparent.

The first case of this disease ever reported appeared about seventy, or eighty years ago in Bell's book on the nerves. It was then regarded, however, as several different diseases. Twenty years ago, M. Duchenne diagnosed this disease as a separate and simple condition from a case of it reported by Trousseau. The condition he described to be one of paralysis of the tongue, lips and palate.

The first symptom of the disease, as a general thing, is facial anæsthesia. This symptom, however, is not likely to attract the attention of the patient, and so in all suspected cases you must search for it. The next sign of the presence of the disease is, generally, the paralysis of the tongue, so that it cannot be projected from the mouth as much as in health, and cannot be brought into apposition with the roof of the mouth. This lingual paralysis may not always be clearly marked. Following the tongue-palsy we are likely to find tremor of the lips and the idiotic, half open expression of the mouth, to which I have already directed your attention. The saliva is seen dribbling from the corners of the mouth for the lips are paralyzed and the act of deglutition seriously interfered with, so that the saliva finds its easiest means of escape through the oral opening.

The other symptoms do not follow any fixed order of sequence. The difficulty in swallowing is just beginning here. The man is not able to grasp the bolus thoroughly in the act of swallowing. In a very short time the liquids which he attempts to swallow will run out of the nose instead of finding their way down the throat, causing great discomfort.

The nerves which are specially attacked in this particular form of palsy are the facial, hypoglossal, recurrent laryngeal, and spinal accessory. Phonation is generally the last function to go; at the same time the voice is affected, the functions of the heart, lungs, and digestion are likely to be embarrassed and interfered with.

I have seen cases in which the respirations were so feeble that the patient with his utmost effort could not blow out a candle held within an inch of his mouth. This respiratory embarrassment, together with the gastric derangement and inordinate action of the heart, prove quite clearly that the pneumogastric nerve is also implicated in a late stage of the disease. It has been conclusively settled microscopically that the original seat of the lesion in this disease is in the floor of the fourth ventricle. If we make a cross section of the medulla oblongata in any cadaver, and examine the sections under the microscope we find four groups of cells on each side, which are the points of origin of the four nerves which I have just mentioned, viz.: the facial, hypoglossal, pneumogastric, and spinal accessory. When we search for these cells in the medulla of a subject who has died of this disease, we find that they have in great part disappeared, and that their place has been taken by connective tissue.

We thus learn that glosso-labio-laryngeal paralysis

is essentially a disease of the medulla oblongata, and more particularly of these groups of nerve-cells.

The pathology of this disease, indeed, has been very thoroughly worked out, although there is still some difference of opinion as to which are the particular nerve-cells involved. Some neurologists hold that there are two sets of cells in the anterior horns of the grey matter of the cord. These cells, according to these authorities, are of two kinds, viz : motor and trophic. The theory then is that when the trophic cells of these groups in the floor of the fourth ventricle are involved, there is a progressive atrophy of the parts supplied by them, whereas in simple paralysis there is a lesion of the motor cells alone.

The question then arose as to whether there was atrophy or paralysis in this disease. Although, when we examine the tongue, for instance, we are not able to find any appearance of paralysis; Charcot, the great French authority, holds that there is atrophy of this organ, but that the loss of muscular tissue is concealed and its place taken by fat. This is held by Charcot, I say, who declares that this disease is one of progressive atrophy, and, therefore, resembles closely the condition known as infantile paralysis.

I must tell you, however, that other authorities differ very decidedly from Charcot in this matter, and are confident that the disease is not one of atrophy, but of paralysis.

The tongue of progressive muscular atrophy is excavated and nodulated and is very easy to feel that its muscular fibre is wasting, but there are no such atrophic changes in the tongue of a glosso-labio-laryngo paralysis, as I have satisfied myself upon many occasions. I believe, therefore, that only the motor cells of those groups in the medulla oblongata are involved. Certain it is that it is not possible to distinguish by the microscope between motor and trophic cells. Nor is this very remarkable, for although we are very firmly convinced in the difference between the secretions of the salivary glands and of the pancreas, we are yet unable to distinguish between microscopical sections of these two glands. Again we are wont to attribute different functions to different convolutions of the brain, and yet no power of the microscope will enable us to distinguish between sections taken from different convolutions, and say this belongs here and that there. From this it must inevitably follow that the fact that two organs present the same minute anatomy is no argument that their functions are the same.

Whatever disagreement there may be, however, as to the nature and function of the cells which disappear, there is no question as to the fact.

Another point of interest which I may mention is that there is sometimes following these paralytic lesions, high up in the cord, a secondary degeneration in the grey matter of the anterior horn, which produces both paralysis and progressive muscular atrophy of the parts below, *i. e.*, while this same disease which we have been discussing is attacking the parts supplied by the four nerves already mentioned, there may be paralysis or atrophy, or both paralysis and atrophy.

Charcot contends that in this disease *i. e.*, glosso-

labio-laryngeal paralysis there is not only disease of these groups of nerve-cells in the medulla oblongata, but also a unilateral lesion in the anterior horn, of the grey matter of the spinal cord. The muscular atrophy to which I have already referred, which comes on afterwards in very many cases of this disease as a secondary manifestation, is very likely to be entirely overlooked unless it is searched for carefully.

You have already had your attention directed to the hemiplegic tendency in this case, giving you a very excellent illustration of how degeneration of the spinal cord may be secondary to an original lesion of the medulla.

The prognosis in this disease is always bad. I have never seen a patient recover. However, this man must not be down-hearted, for he may get well and so form the first exception to the general rule. This makes the eighteenth case of the disease which has come under my notice; the other seventeen all died. One interesting case was that of a watch-maker. When I first saw him he was unable to speak or to swallow. He was able to write, however, and in my book on nervous diseases you will find a fac simile of his writing. In his case, in addition to the medulla lesion there was secondary disease of parts below; the biceps, and other muscles of the shoulder being paralyzed.

Another of the seventeen cases was a very remarkable one. It was that of a patient from Missoury who came into my office holding his handkerchief in his hand and with the saliva flowing from his mouth in a great stream. He was neither able to speak, nor to swallow and soon afterwards died of starvation. (The saliva very often becomes glutinous and sticky in this disease from decomposition and when the mouth is open falls out of it in a long string.)

The diagnosis of this disease is not generally a matter of any difficulty. Glosso-labio-laryngeal paralysis might perhaps be confounded with the general paralysis of the insane, especially in such a case as this where there is some mental hebetude. This, however, is always a secondary condition. I recollect one of my cases, that of an officer in the army, who preserved his intelligence until almost the very last, but finally became imbecile. It is very common to find some confusion of ideas quite early in the course of this disease. If nothing else is apparent there is at least more time required for thought upon a subject than is necessary. The patient may look at times as if he were upon the point of bursting out into tears. The symptom of all others which is most likely to be mistaken is the tremor noticeable in the upper lip which is a very prominent symptom in general paralysis. Taking it all in all, however, there is no other disease with which it is likely to be confounded, paralysis of the lower part of the face the copious flow of saliva and several of the other symptoms being present in both diseases.

Regarding the treatment of the condition I have nothing whatsoever to offer and nobody else has any treatment to offer. There have, indeed, been cases which have been reported as cured but careful examination has proven conclusively in every case that they were not true instances of the disease. The real disease itself has never been cured at all.

In spite of our helplessness in this affection I am glad to say that our knowledge of the diseases of the nervous system and of their proper treatment is improving. Ten years ago few of the cases of epilepsy were cured, whereas now we cure fully twenty-five per cent of the cases of that disease which are brought to our notice.

The only thing which I will recommend in this case is the use of counter-irritants to the nape of the neck, putting them on as high up as possible. Of these perhaps the best is the actual cautery which should be applied about as often as once in every ten days, or two weeks.

Internally and theoretically the best remedies ought to be those which improve the nutrition of the nerves, namely phosphorus and strychnia. If I had seen this case, or shall ever be fortunate enough to see another case in its earlier stages I should, of course, try the fluid extract of ergot as the initial lesion must be one of congestion. But the trouble is that we never see these cases until a chronic inflammation has set in and the nerve-cells are beginning to disappear.

The patient is at present taking strychnia in the shape of ten drops of a solution containing the $\frac{1}{4}$ of a grain of strychnia to the drop. They have also been giving him the iodide of potassium upon the supposition, which it is always safe to go upon in these cases, that there may possibly be some constitutional syphilis at the root of the trouble. He admits having had a urethral discharge several years ago.

In support of this supposition I may also point to the fact that the man is prematurely bald. I think, gentlemen, that unless affairs take a different turn from that which they are at present pursuing man will be known hereafter not as the animal that thinks, but as the animal that is bald. A year and a half ago the patient says he had a sore ear and that he got something for it which drove the soreness out of his ear and on to the top of his head rendering him bald. This is his explanation but it strikes me that the baldness rather points in the direction of early syphilitic infection. If it is not this it is at any rate, I think, a symptom of inherited syphilis. He is taking now ten grains of the iodide of potassium thrice daily and after to-day I shall tell him to increase this dose by a grain each day. He says that this treatment has already made him feel better. I hope it is true, and that out of all the eighteen cases he will be the first to recover.

BRAIN TUMOR OF SYPHILITIC ORIGIN.

Two years ago this man had an attack of partial hemiplegia, which affected the left side of his face and his left arm and leg at the same time. The paralysis of the left side of the face was very gradual, requiring four weeks to develop. Since last January he has lost sensibility in his right leg. He can hold his water perfectly now. He could not read or speak well at the time of his first attack, but he can do both now. His swallowing is not interfered with at all. The right arm retains its sensibility perfectly, but the right leg is decidedly numb. When I come to test his legs with the æsthesiometer, I find that he feels the pin points more distinctly on the left than on the right leg, the latter limb imparting the feeling of its being asleep.

He never had heart disease or rheumatism. He has frontal headache on the right side. There was no loss of sensibility upon the left side of the body at any time. He says that he has never had any venereal disease, but I make free to say that I do not believe his statements. This case has every appearance of being one of syphilitic disease of the nervous system. There is only one other supposition which could explain his condition, and that is the occurrence of thrombosis, but we would not expect thrombosis to produce the paralysis on one side and the loss of sensibility on the other. This man has two lesions. Of these there is either one in the brain and one in the spinal cord, or both may be in the brain.

(But listen, he allows now that he had a chancre once upon a time, and this settles the diagnosis at once.) One of the lesions involves a motor, another a sensory ganglion. I should say that both of them were in the brain—one in the right corpus striatum and the other in the left optic thalamus. But I may possibly be wrong, and one may be in the spinal cord. The paralysis extends too high up for both to be in the cord. The lower one may be on the right side of the spinal cord after the motor decussation.

But let us examine more closely. The man is thirty-three years old, and has been married four years. The motor paralysis is on the left side. I ask him to walk and find that he can walk well with his eyes shut. This seriously militates against the supposition that any part of the trouble is in the spinal cord. If both the lesions are in the brain, they are undoubtedly on opposite sides of the organ.

The multiplicity of the lesions here is characteristic of syphilis. The fact that the motor paralysis is on one side of the body and the sensory paralysis on the other, renders the case one of much interest. I am very confident that both of the lesions are in the brain.

As regards treatment, he has been receiving electricity. This is very good, but I shall put him at one upon ten drop doses of a solution of the bichloride of mercury, containing one grain of the bichloride to the ounce of distilled water. Together with this he shall have increasing doses of the iodide of potassium. As far as the treatment is concerned it makes no difference whether the symptoms are secondary or not. I think that the two brain lesions are unquestionably gummy tumors.

IDIOTCY.

This is a very interesting case. The child is four years old, and does not speak and has never spoken. You notice the great deficiency in the shape of the head, particularly in the supra-orbital portion. The child cries all the time, all the day long, and is never quiet except when he is asleep. During the past two or three weeks he has been much more excitable than usual, his father thinks. Upon examining into his history, I find that when the child was about two years old he fell from his bed to the floor one night, and the next morning was found asleep beside the bed. For all his parents knew he may have lain there a long while in a condition of stupor. They did not hear him fall, and knew nothing of it until they found him on the floor.

There is certainly no development of intellect here in the line of speech. The boy is imbecile, and the strong probability is that he never will speak, and never will exhibit any intellect. There is, of course, nothing to be done for this, but something may be done to quiet the restlessness and render the child more manageable. This can be effected by the judicious use of the bromides. The boy ought to be sent to an institution for idiots, where he can receive proper attention. There is certainly no active disease here; there may be some cerebral hyperæmia, but I doubt it exceedingly.

MYSOPHOBIA.

This woman is an illustration of a very curious and rare condition which I have called *mysophobia*, from *musos* = filth, or contamination, and *phobos* = fear. She fears that she may be polluted by anything and everything which she touches. It first arose, according to her husband's statement, in her hand being soiled by some of the green stuff from a brass candle holder. Nor is this fear of contamination the only symptom. Whenever she takes anything in her hand she does not know where to put it down, for she reasons, if I put it here it may harm some one, and if I put it there something else may happen, and so on. This is the tenth case of this disease which I have seen. All the others have been effectually cured by large doses of the bromides—from fifteen to twenty grains thrice daily. *Mysophobia* is the exponent of a state of mental hyperæsthesia, which is better controlled by the bromides than by anything else.

ORIGINAL ARTICLES.

ACUTE SUPPURATIVE ARTHRITIS OF THE KNEE AND SHOULDER-JOINTS TREATED BY OPENING BOTH JOINTS AND SUSTAINING FREE DRAINAGE—COMPLETE RECOVERY, WITH MOTION.

BY
JOHN H. ARTON, M.D.,
Isle of Bermuda.

Seen in the light of an article* by Prof. Verneuil, in the London *Lancet* of Jan. 4, 1879, the following case has appeared to me worthy of record.

I was called on the evening of 19th December, 1878, to a man, a native of Bermuda, aged 51. I found him suffering considerable pain in his left knee, which was swollen red, and hot; also his left shoulder. He was also suffering from acute epididymitis of opposite side. His temperature 102°. Urine, acid, sp. gr. 1030. No albumen. Pulse hard and wiry, and 112. Perspiring freely, and the perspiration smelt very sour. No history of fall or blow of any kind.

Diagnosis. Acute rheumatism.

Ordered salicylic acid; wrapped joints in cotton wool; suspended testicles and kept warm lead and opium wash applied to the scrotum. The epididymitis gave no further trouble. Next morning I found the joint trouble no better; pain very severe; much swelling and heat. On uncovering the leg the patient's wife remarked that he had had a pimple on

the ankle which he had scratched, and which was still hurting him. I found an inflamed spot a little above the outer malleolus, and, what concerned me more, I could see red lines running up to the knee, showing a superficial lymphangitis. I ordered a small poultice to the spot, and resolved to watch it, though I had not then seen or heard any connection between such a lesion and inflammatory joint trouble.

What surprised me more was that a similar state of matters existed on the arm above the external condyle of humerus. I continued the anti-rheumatic treatment, supplemented by morphia hypodermically at my evening visit, to procure relief from pain, and sleep, until the 25th, but with no relief. The knee and shoulder were both tense and hot, and very painful. I applied leeches and afterwards kept up the bleeding by hot poultices. This relieved the pain, but as soon as warmth was discontinued pain returned. Temperature was now 104° night and morning. Perspirations still continuing. No chills had occurred. Anorexia.

27th. Ordered quinia sulph. gr. v, t. i. d., and dry heat to joints. Still used morphia.

28th. No change.

29th. No change.

30th. No change.

31st. No change.

Jan. 1, 1879. Had a chill; pain much less; thought I could detect a slight fluctuation.

2nd. Patient had perspired profusely during night, and on examining knee felt sure of fluctuation. Shoulder quite tense, and still excruciatingly painful. Having quite determined in my mind that I had now a case of purulent synovitis, I passed a grooved needle into the knee-joint and got pus.

Next day, with the kind and able assistance of Dr. Henry Hinson, I proceeded to open the joint. I offered the patient the alternative of opening or amputation, telling him that the former operation was by far the more dangerous, and indeed would most likely be fatal while by the latter he had a fair chance of recovery. My opinion was based on Holmes, who says† "The great majority certainly of the cases which have come under my own notice, in later life, have proved fatal (after opening) from traumatic fever or pyæmia. In the case of persons whose general health and constitutional vigor are not very favorable, it is questionable whether amputation be not the more prudent course." The state of this patient's constitution was decidedly bad, but he refused the alternative and insisted on taking the greater risk. I had postponed operating as long as possible in hopes of both joints being ready, but as no positive signs of suppuration had occurred in the shoulder, not even on aspiration, I could wait no longer, but proceeded.

Having brought the patient under chloroform, Dr. Hinson kept up anaesthesia by ether, while I opened the knee joint by a free incision on its outer and lower aspect. The joint discharged half a gallon of pus (by estimation). I syringed it out with a solution of carbolic acid (1 in 20) and filled the cavity with oakum soaked in Peruvian balsam. Placed pad of oakum over wound and bandaged

* On Hydrarthrosis and Arthritis of Knee consecutive to Lymphangitis of the Lower Limb. By Prof. Verneuil, &c., &c.

† Treatise on Surgery. Its Principles and Practice. By Timothy Holmes, p. 461.

from toes to above knee. Put the leg in a sole-leather splint from heel to half way up thigh. Patient made a good recovery from anesthesia, and temperature had fallen to 102° by evening.

Every morning I dressed the joint, repeating every step of first dressing.

Temperature steadily stood at 102°, patient taking gr. xx of quinine a day and 25 drops nupenthe in brandy at bedtime. He was ordered frequent nourishment and drank porter, but nothing would induce him to take alcoholic liquor. Knee joint never gave one twinge of pain after operation. Shoulder joint still in the same state. On the 21st his temperature rose to 103.5° and he had several rigors. Shoulder joint fluctuated and gave pus to needle. Next day, with same assistance, I opened the shoulder joint. It discharged 3 pints by measurement.

After-treatment exactly the same as for knee; and this was kept up until the end of February. Knee had then ceased to discharge and nothing was left but a skin wound. There is a slight motion in the joint; the shoulder at the end of March was also well and *not* ankylosed, but the arm nearly powerless. This, however, is improving, and now my patient walks with the aid of a stick, and he is gradually gaining use of his arm. His temperature has been normal since 11th of March. As I could get no history of injury, and saw the articular inflammation evidently following a lymphangitis, I could not help connecting the two.

The recovery of my patient was gratifying and surprising, for he was a run-down subject long before I saw him. Again, as I was unable to operate antiseptically the wounds continued to discharge pus for a long time, but as free drainage was secured (in the case of the shoulder joint, I passed a perforated india rubber tube into the joint,) and free use of antiseptic injections kept up, the systemic effects were slight after he once rallied from the operations. I am surprised that the shoulder joint should not have ankylosed, but by no means displeased. I believe the key to the result was free and efficient drainage, and the quinine, which, being dissolved in hydrobromic acid, never produced the slightest cerebral disturbance, though continued in such doses for over two months.

A SELF-RETAINING SIMS' SPECULUM.

BY

A. H. GOELET, M.D.

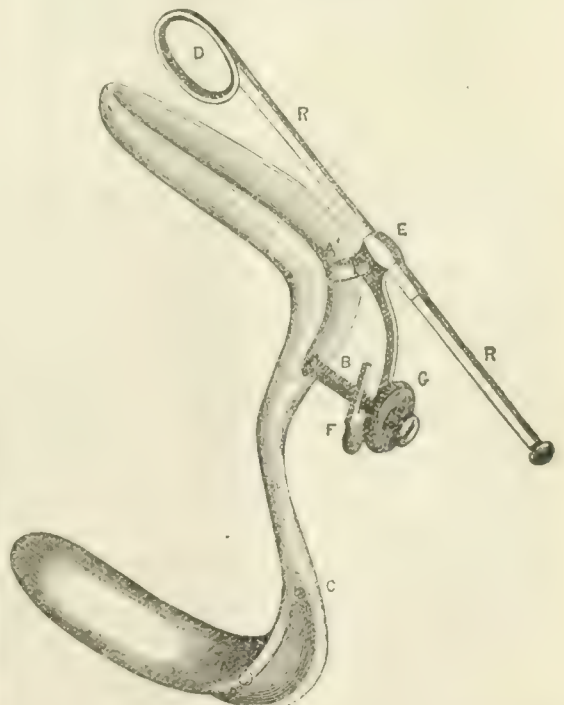
The Sims' Speculum is, undoubtedly, a most invaluable instrument, but its greatest drawback is, that it requires an assistant in using it. If the physician attempts to use it alone he occupies the left hand with holding the instrument in position, while the right is engaged in elevating the anterior wall of the vagina by means of the depressor; thus both hands being in use manipulation is impossible. Dr. Thomas in his excellent work on Diseases of Women, says of this instrument, "The facility which Sims' instrument gives for exploration and treatment is very great, so great, I think, that the practitioner devoting himself to gynecology who does not avail himself of it, loses as great an advantage as the auscultator would forego in not bringing to his aid the double stethoscope of Cammann. But unfortun-

ately this instrument presents such disadvantages that it can never come into general use. * * It cannot be employed without an assistant, and not only so, a skilled assistant is necessary for it to be of real value."

The present modification consists of a movable attachment of a depressor to an ordinary Sims' Speculum and will remedy this disadvantage. (It may be here mentioned that the attachment is similar to the depressor of the Schuyler Speculum, a description of which may be found in the *N. Y. Medical Journal* for October, 1876.)

Dr. Thomas' modification of Sims' Speculum does the same thing in a measure, but this also has its disadvantages. It consists of one blade fastened to a handle with the depressor attached to a lateral arm projecting from the base of the blade, which is much widened at that point to accommodate it. The attachment is fixed, *i. e.*, cannot be removed, and there is only one size blade.

The advantages then of the present modification are, viz.: *First*, the attachment may be made to any Sims' Speculum. *Second*, it may be used without an assistant. *Third*, the attachment which is movable may be fixed and used with either the large or small blade. *Fourth*, the attachment being movable the Speculum may be used without it if so desired. *Fifth*, the Speculum may be first introduced and the depressor attached afterwards. *Sixth*, when introduced and the depressor fixed in the desired position by the thumb-screw, it will retain this position without further support. This is a point of gain which had not been anticipated for it, but which has been proved by repeated experiments.



The attachment consists of a small arm *only* large enough to hold a screw, riveted to the Sims' Speculum at A¹, where the depressor is attached by means of a lock like that of a Hodge Obstetric forceps. At

B a standard, upon which the thumb-screw G works, is made to screw in and may be removed or screwed in at C when it is desired to use the smaller blade. At A¹ is the arm for the attachment of the depressor to the smaller blade. The depressor is a light steel rod R R which terminates in an oval ring D and slides up and down through the upper end of the lever at E. The lower end of the lever F slides up and down on the standard B and may be fixed at any point by means of the thumb-screw G.

The instrument may be introduced in two ways, viz.: First, with the depressor attached but drawn back to its limit when it will not interfere with introduction; or second, the lever and depressor are first detached, leaving only the small arm A and its screw and the standard B attached to the Sims' Speculum. The blade is then introduced in the usual manner and carried well behind the cervix. Being steadied in that position by the left hand, the lever, with the depressor well drawn back, is attached at A with the right and by means of the screw locked. The depressor is then slid along in the groove of the Sims' blade until it comes to its extremity, when it is separated from it $\frac{3}{4}$ of an inch. Then by placing the thumb of the left hand on the lower part of the lever at F the cervix may be lifted into any position desired and held there by means of the thumb-screw G.

Any gentleman wishing to see the instrument before having the attachment made to their speculum may call and examine it.

203 West 52d street, New York.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

SERVICE OF DR. FRANK H. HAMILTON.

[Prepared for THE HOSPITAL GAZETTE.]

EXTENSIVE CHRONIC ULCERS OF LEG SUCCESSFULLY TREATED BY HOT WATER AND GRAFTING.

The patient, a male, æt. 24, was admitted to the hospital on December 24th, 1878, at which time he gave the following history: Three years previously he had met with an injury to the leg, which had destroyed the skin and produced an ulcer, which steadily increased in size until it involved nearly the whole anterior surface of the leg. Under rest and various stimulating applications it would partially heal, only to again increase in size when he began to use the leg. So it continued up to about a year ago, when he entered the hospital in Detroit. Here, after resorting to a number of means to induce the ulcer to heal, including grafting, carefully carried out for a period of six months, the attending surgeon advised amputation of the leg as the only thing which promised relief from life-long suffering and misery. He came to New York from the West to have this operation performed. Upon admission we found a very offensive ulcerating surface extending from the ankle to the knee, and almost encircling the leg. The ulcer was indolent and discharging a thin sanies.* The loss of skin was so ex-

tensive that it was decided at once that by grafting alone could the whole surface be covered with new skin; but preparatory to the grafting it was necessary to make the granulations healthy. Accordingly, the patient having been put in bed, hot water fomentations were applied, and on the fifth day the granulations were red, firm and in all respects healthy. The surface was now covered with a number of small grafts, nearly all of which became adherent, and two weeks later the ulcer was closed.

About a month later however, while the patient was sitting up, the new skin again ulcerated in several points, and the hot water treatment had to be resumed. The same good results again followed its use, and, syphilitic infection being suspected, the patient was put upon the mixed treatment. As soon as the granulations were healthy, grafts were again made, and the ulcer closed promptly. The patient has now been walking about for over two months, and has gained in flesh, strength, and spirits. He is now learning to use the solid rubber bandage, and no subsequent outbreak is anticipated.

The result illustrates both the value of hot water in revivifying indolent granulations, and also the value of skin grafting in this class of intractable cases.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY

JOHN A. WYETH, M.D.

THE INFLUENCE OF THE PRESENCE OF THE MAMMARY GLAND UPON THE FUNCTION OF REPRODUCTION. DR. LOUIS FIAUX.

The experiments were made upon Guinea pigs, virgin and adult, the mammæ being extirpated and the coitus not allowed in some instances until six to eleven months, and in others until a lapse of four years.

Each female gave birth to the usual number of pigs in due time. They were all sound. F. concludes with M. de Sinety, that the presence or absence of the mammary gland has no influence whatever on the function of reproduction.—*Gaz. des Hop.*, No. 8, 1879, p. 59.

FUCHSINE OR HYDROCHLORATE OF ROSANILINE IN CHRONIC ALBUMINURIA WITH ANASARCA.

CASE I.—Female, æt. 8. During last two years she has had symptoms of anasarca, which is of late well pronounced. No cough, no visual disturbance; heart and liver normal; appetite good; has diarrhœa; albumen in urine, 25 parts to 1000. Treatment May 1st, flannel next to skin; 15 centigrammes of fuchsine, in aromatic essence of peppermint. As the child vomited, dose reduced to 10 centigrammes; 5 days later diarrhœa ceased; patient was fed on bread and milk only. On July 16th, discharged cured. Albumen had been absent for 10 or 15 days.

CASE II.—Acute albuminuria following scarlatina,

Patient female, æt. 7. Fuchsian, 10 centigrammes a day in pills for 15 days. Cured.

Four other cases are reported with the same treatment and success in each instance.—*Ibid.*, Nos. 8 and 9, pp. 57 and 65 respectively.

LACERATION OF THE SCROTUM; PROTRUSION OF THE TESTICLES. M. GÉRARD.

CASE I.—Testicle reduced; scrotal wound united promptly. Successful.

CASE II.—Testicle returned; in process of cicatrization testicle was covered, but there was considerable induration and adhesion.

CASE III.—Male, æt. 29, received a gunshot wound through the lower portion of the scrotum. The testicle protruded immediately, and no attempt at reduction was made, the organ being covered with dressing of carbolic acid and supported by a bandage; there was a considerable loss of scrotal tissue, and fifteen days after the injury, when the patient was first seen by Dr. G., the wound had cicatrized, leaving the testicle entirely exposed. There was a peculiar and intense pain, due to the contraction of the tissues and pressure upon the epididymus. In order to cover the gland, the patient was anæsthetized, and a flap taken from the perineum and twisted to meet with the integument borrowed from the scrotum which covered the opposite [left] testicle, to which it was attached by catgut sutures. The recovery was complete, and in twenty days the soldier rejoined his regiment able for duty.—*Ibid.*, No. 9, 1879, p. 67.

ANEURISM OF THE ASCENDING AORTA—SUCCESSFULLY TREATED BY ELECTROLYSIS.

At the Seance (Jan. 21, 1879) of the Académie de Médecine, M. Bucquoz, presented a patient, laundress, æt. 39, with an aneurismal tumor occupying the external portions of the 2d, 3d and 4th right intercostal spaces, measuring twelve centimetres in length and bulging out from the thoracic walls about eight centimetres. June 12, 1878, two needles were inserted into the tumor a depth of two centimetres and a half, and then connected with the positive pole of a galvanic battery. The pain was severe during the operation but gradually passed off. The tumor gradually diminished in volume, and after four other applications, at intervals of fifteen days, it was reduced to one-half its former size. She was discharged on the 23d of August, but returned two months later. On October 31, November 16, December 11, and January 4, the electro-puncture was repeated. As presented to the Academy, there was no protuberance except a small lump about the size of a hazel-nut, which moved with the cardiac impulse and gave a slight aneurismal bruit. This remaining tumor was much hardened since the last operation, and Dr. B. thought that it would eventually become completely solidified.—*Ibid.*, No. 9, 1879, p. 69.

SULPHO-METHYLATE OF SODA.

M. Rabuteau has introduced this new purgative salt. It is produced as follows:

H^2SO^4 (Sulphuric acid,) + CH^3HO (Metylic alcohol, = CH^3HSO^4 (Sulpeo-methyl,) + H^2O . water; fifteen grammes dissolved in two tumblers of

water, is sufficient to produce two or three free evacuations.—*Ibid.*, No. 11, p. 84.

DR. R. PICK—SUBCUTANEOUS INJECTIONS OF NUTRIMENT.

In 1869, A. Menzel and H. Perco, made their researches in this new method of alimentation, operating principally on animals (dogs), and on one man suffering from caries of the spine.

In dogs they used almond oil, olive oil, cod liver oil, milk, yellow of eggs, and simple syrup. Beginning with 4.3 grammes of the oils, they gradually increased to 35 grammes at a single injection, making in all as many as twenty-five injections, viz.: 16 of almond, 6 of olive, and 3 of cod liver oil. Absorption was complete in twenty-four hours. In no instance was there inflammation or suppuration. Milk was used in only a few instances and then 5 to 10 grammes at a time, which was absorbed in twenty-four hours. Yellow of egg was used four times, and simple syrup ten times, with the same success. The patient experimented on was in Billroth's clinic. 0.66 grammes of oil was injected under the skin of the forearm. Very slight local disturbance which disappeared in thirty-six hours. In 1876, Krueg, employed this method in a patient, æt. 37. One to two injections daily were made in several different localities, mostly in the feet and extremities. When these were slowly made there was no pain. There were no unfavorable results. Olive oil was used, and a solution of sugar once. A whipped egg introduced at one injection excited inflammation and suppuration. The patient, who was determined to starve himself to death, became discouraged from the failure in this attempt through the injections, and resumed his normal ingestion of food. Though for ten days at one time he refrained from eating, the hypodermic injections supported life so well that little or no change in his appearance could be detected. Prof. J. Whitaker, of Cincinnati, made a series of injections in the case of a female patient who was unable to retain food in the stomach or rectum. He used 4 grammes of milk every two hours, alternating with beef juice, for four days. The patient improved very markedly. The delirium which had resulted from starvation disappeared. She was able to take milk for some time by the mouth, the stomach again becoming disordered the injections were resumed. In all, sixty injections were practiced, 4 grammes at a time, the liquid being slowly introduced. There was no pain or inflammation. On one day 4 ounces of cod liver oil were used in eight injections. Two small abscesses ensued after the use of milk. It was thought that the alkalinity of the blood made the osmosis possible.

Dr. Pick's cases were as follows: Mrs. K, æt. 30, phthisis, 1 gramme of egg yolk. W. H, æt. 25, also suffering from phthisis, 1 gramme milk. In less than 24 hours complete absorption, in both. No pain or soreness. May 9, 13, 14, 16 and 18 and later these injections were repeated, egg, almond and olive oil and milk at various times and always with happy results. *Deutsche Medic. Woch.*, Jan. 18, 1879, p. 31.

[These cases are exceedingly interesting and offer in cases of gastric and rectal intolerance a hopeful alternative for the practitioner.—W.]

THE HOSPITAL GAZETTE.

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

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EDITORIAL.

COMPULSORY VACCINATION.

A very interesting, because sharp, debate is being had in the British Commons on the "Bill to Extend the Operation of the English Vaccination Act to Ireland." The medical profession has approved the contemplated extension, and has furnished arguments to demonstrate its necessity, as well as advisability. The opponents take a stand that it was a great wrong to compel a man to do, or rather have that done to his child which he verily believes may result disastrously, possibly in its death.

The bitterness of the opposition makes it quite probable that a compromise may be effected, and parents, who are conscientiously opposed, or constitutionally cross-grained to that extent that they will refuse to comply with the law twice, will pay the penalties assessed for the two refusals, shall be allowed the benefit of their opposition or obstinacy thereafter. The *British Medical Journal*, in giving a *resumé* of the discussion, says that Mr. Hopwood referred in his remarks to a father in England, who had been fined twenty-five times for his repeated refusals to submit his children to vaccination. He warmed as he progressed, and proclaimed that "Any one who denied that a parent had the right to evade and get rid of this terrible chance of poisoning the veins of his children, must be devoid of the ordinary promptings of Nature, or ordinary promptings of human reason. * * * It was in the highest degree iniquitous that they should go on enforcing a man, to his utter ruin, to vaccinate his children, whilst they had not secured to him, as they should have done, even something like purity in the filthy matter that had been churning in the veins of humanity for the past seventy years—ever since the time of Dr. Jenner."

Mr. Henry, while favoring the bill, opposed

changing the age for vaccination from six to three months. He congratulated the country upon absence of prejudice against vaccination in Ireland, and continuing, said:

Only think what the condition of things would be in Ireland, if a people so determined in their opposition to what they believed to be wrong had taken a view against vaccination. It would have been impossible under these circumstances to have dealt with small-pox throughout the whole kingdom, and he thought they had great reason to be thankful. With regard to the epidemic that had recently occurred in Ireland, he considered it had resulted principally from the impossibility of obtaining a proper supply of lymph. To his own certain knowledge, in the western part of Ireland, the people had flocked in hundreds and thousands from all parts to be revaccinated. Their enthusiasm for the operation was extraordinary. The epidemic in the West of Ireland had been stamped out, he believed, entirely by the enthusiasm of the people in favor of vaccination. Mr. P. A. Taylor said there seemed to be some little confusion between excellence of vaccination and the propriety of making it compulsory. He would only venture to say this much, that, having been a member of the Committee of 1871, his attention has since been attracted to what he believed to be the injustice of compulsory vaccination; and, having seen the statistics on the subject, his opinion was so far modified that he could not now put his name to the report which was unanimously agreed to by the Committee. It seemed to him that what was objected to was compulsory vaccination; but, now that it was said that the Irish people showed an enthusiastic adherence to vaccination, it did not appear that there was any need to force on them this compulsory vaccination, which was such an objectionable thing to those who disagreed with the system. There was a great amount of honest open prejudice against the dangers of vaccination. He had met dozens and scores of people, who had told him of persons who had died of the consequences of vaccination—people who had given him the details of these cases: how they had seen the vaccine sore increase and spread over the arm of the child, and how it had ultimately died in great agony. These people were wrong if they pleased, but they would be utterly wrong if, with the opinions they held, they were to allow their children to be vaccinated. There was no evidence to justify the law as it existed. There was not that certainty as to the results of vaccination that was boasted of by Jenner, and believed in during his time. Since vaccination had been made absolutely compulsory in this country, the deaths by small-pox had absolutely increased. There was actually a larger percentage since 1853, when it was made compulsory, than there was before. In Germany, which was the best vaccinated country in the world the deaths by small-pox during the last epidemic were something frightful. But far more than that, it was by no means certain that it was safe to vaccinate children. It had been stated that it was impossible for syphilis to be communicated by vaccination, but many cases had occurred in which it had been communicated. It had been stated by a fa-

mous French surgeon (M. Ricord) that, if it could be shown in any one case that syphilis was the result of vaccination, vaccination must cease; for it would be impossible to say that the vaccine matter which was distributed was safe. It was abominable tyranny for the State to step in and stand between the parent and child, and say the latter shall incur a certain risk of syphilis rather than incur a certain chance of small-pox. It seemed to him they were in this dilemma, that either vaccination was a certain prophylactic, and people would adopt it themselves, and there was no need for enforcing it; or that it was uncertain, and should not be enforced. He complained that the poor, who could not afford to resist the tyranny of the law, were oppressed. People of the better class did not have their children vaccinated; therefore, it became a piece of tyranny, seeing that the poor could not evade it. Finally, if vaccination were the finest and safest thing in the world to attempt, compulsion was an enormous mistake in policy, because they were setting against it a large number of people, whose adverse views might be only prejudice, but whose prejudice was increased by the injustice imposed.—Major Nolan supported the bill. There had been outbreaks of small-pox in Ireland, and they always found that those who were not vaccinated suffered from the disease far more than those who were.

The discussion cannot result otherwise than in securing good, but it is to be hoped that in its continuation facts will not be so terribly twisted. Rhetorical effort always claims privileges, but overreaches itself too far when it tampers with facts, bends them to favor either side.

Vaccination, according to its opponents, must bear all the sins of speculative druggists, who do not exercise proper care in the purchase of lymph; must be the scape-goat for the thoughtless nurse, who neglects the child when greatest caution should be observed, and finally must be responsible for all the ills to which miserable constitutions fall heir, provided said ills show themselves at the time of vaccination. The law not interfering, druggists, following an old trade maxim of "buy cheap and sell high," might purchase lymph whose pedigree it were better for him not to question. Such things have occurred, and repetitions are within the limits of possibility for the future; they are not far within or out of the limits of probability. The use of such virus has been succeeded by serious results, and the same may happen again. Yet if the worst come, under such circumstances, it would be the quintessence of stupidity to charge failure to vaccination, to screen the grabbing propensity of the dealer. Such, however, was the gist of the argument of some of the worthy opponents.

The poor nurse belongs to that unfortunate class called "house help," who have had their vices and shortcomings so extravagantly elaborated by tongue and pen, that it is beyond our nature to dwell upon

a single blemish in their career. Our language would contrast poorly with what has been said, if we were willing to speak in condemnation. Suffice it to say that nurses are but human, grow weary and listless at times; at others permit the attention to roam in more inviting fields, therefore the lately vaccinated child, in his freedom, does not deport himself or herself in a manner that an intimate knowledge of hygienic laws would dictate. Should such inattention amount to exposure and inflammation ensue, vaccination certainly is not responsible, and the assertion is proof of lack of judgment.

A great deal has been said that has alarmed the world, to the effect that children have had syphilis imported into their veins by vaccination. Blood poison, syphilis and vaccination are, to many, synonymous. We treat the charge respectfully, as we should, and pronounce it a bugbear, a good scare-crow for the development of the common infection called "the simples." Considering the close alliance in the human family, it is astonishing to know how pure is the blood that runs through our children's veins, and how impure the blood in others; those others, our cousins, aunts, uncles and nieces. The purity of the first is a thing not to be questioned, at least not aloud; which being so, it is the general understanding, each for itself, that every other family has what is called a constitutional weakness, and virus gathered from such a source will develop injurious tendencies when used in our family. *Per consequentia*, vaccination is blamed when our pure blood shows taint after that operation has been performed. This reasoning is too absurd, and it matters not how popular it may have been.

The supply of good blood is abundant, and serious taint scarce. Our neighbor's family is, most likely, as largely and purely supplied as our own. It is most reasonable to so infer, since the inducements and chances for preserving health and strength are about uniform throughout the world, being but little dependent upon wealth. Extreme poverty is not so hurtful as great riches.

But, to concentrate all the opposition to vaccination, we may say that whatever ill shows itself to the patient at the time of vaccination is charged by the anti-vaccinationists to it, as in the present debate. Lacking reasons, loud assertions, designed to work upon the fancy of the ignorant, are relied upon. They convince nobody. They serve, however, a good purpose for the great mass, since they keep people alive to the imposition and possible neglect—are social fleas and mosquitoes.

Vaccination has only recorded for itself the unvarying history of every blessing vouchsafed to man. *Crucifixion and resurrection.* There must be a Golgotha, then comes a Galilee. Revilings greeted its

announcement; persecution hounded its advocates, and with fagot of burning hate, and with force, they were swept away from contact with the living world, buried in a tomb that popular fear, yes, universal fear, had built for them. The day of resurrection came, and now civilization never ceases to give full praise.

Small-pox formerly made its regular round, the people flying at its approach or falling before it. Every six or seven years the visit was expected and it came; medical skill was powerless before it. Since the days of Jenner that cycle has been broken; preparation is made for its coming, therefore its horrors are almost forgotten. The triumph has been too great for oratory to dim its lustre.

SELECTIONS FROM JOURNALS.

CHANGES IN THE SWEAT GLANDS IN CANCER AND IN LEPROSY.

Dr. Hoggan made a communication on the above subject to the Pathological Society of London (*Brit. Med. Jour.*) which was illustrated by drawings and microscopical specimens. He grouped the two diseases together, because the morbid processes and results in the two cases were entirely opposite conditions, thus affording a striking contrast. In previous communications he had studied the effect of the two diseases on the lymphatics; he now wished to trace the changes which take place in the individual cells, and subsequently in the glands themselves. He had previously shown the effect of cancer on the lymphatic or wandering cells, which form the great mass of the cancer, and which were the readiest of all cells to take on cancerous infection. He had also studied its effect on the epithelioid cells of the lymphatics, which only become infected after prolonged contact with cancer-cells. With the epithelial cells lining the sweat glands, the case was different, for these became infected not necessarily by direct contagion, but apparently from the mere existence of a cancerous influence in their neighborhood. In some specimens only one cell in a tubule had become cancerous, all the surrounding cells being healthy; in others, all the surrounding cells became cancerous *in situ*, the basement-membrane having burst; in others, where the basement-membrane was unruptured, the cells, having become cancerous, had become dislodged to allow of further growth. The character of the cells of the basement-membrane was invaluable in identifying cancerous sweat-gland tubules, even in the midst of a tumor; and, from their epithelioid nature, they were much less ready to become cancerous than the epithelial cells lying upon them. The epithelium lining these glands was, of all the fixed cells, the readiest to take on a cancerous change. He especially insisted on the difference between cancer of the skin and epithelioma; in the latter the malignant influence began in, and extended down from, the epithelium; whilst in the former—which was the variety of disease exhibited in his specimens—he had been unable to find a single cancerous epidermic cell. In this case,

the secondary tumors developed in the sweat-glands, or, still more frequently, from cancerous lymphatics. These, by their growth under the epidermis, cut off the supply of nutrition from it, and finally the whole tissues became sodden with fluid (the lymphatics being excluded); the epidermic cells perished by a process of moist gangrene. The hairs, hair-follicles, and sebaceous glands fell away in the same manner without becoming cancerous; the hair-muscles, however, become embodied in the tumor, the muscle cells becoming cancerous. The tumors developing in the sweat-glands being wholly cellular, show the medullary type of the disease, but the contiguous wandering cells which approach the tumor become cancerous while lying between the bundles of gelatine, and thus develop the scirrhus type of cancer. In nearly all cases, the cancer first develops in the upper part of the glomerulus, because it is here that the cancerous lymphatics especially lie. The pressure of the cancerous tumors on neighboring gland-ducts, causes the glands to become cystic. In *leprosy*, he said, the degeneration might be divided into two stages, the first being hypertrophic, and characterised by increase in the number of the living cells; their destruction by vacuolation with the production of a cystic condition of the glomerulus portion of the tubules. The second was atrophic throughout; the *débris* of the cells being gradually absorbed; the denuded tubules gradually attenuated; their place taken by gelatine, ending in their complete disappearance. Neumann had mistaken these atrophied tubules for the remains of hair-follicles, and the appearance shown by a transverse section of the tubules he had termed "colloid globules." The degeneration changes pass from below upwards, and not from above downwards, as is generally supposed. The destruction of the cells begins by the appearance of a little globule of fluid beneath the nucleus, which increases in size till it distends, and then ruptures the cell-wall. That the vacuolar fluid is not fatty is proved by its behavior with osmic acid; and that it does not first appear in the nucleolus, is shown by the fact that the nucleus cannot unfrequently be seen floating in the fluid of the vacuole. He held that there was nothing specific in the degeneration of the sweat-glands in leprosy, but that the changes were the same in physiological or chronic atrophy of glands.

A CASE OF FETID PYO-PNEUMOTHORAX WHERE TAPPING HAD BEEN PERFORMED WITH GREAT BENEFIT.

Dr. Theodore Williams read a paper on this subject before the Clinical Society of London, (*Brit. Med. Jour.*) A gentleman, aged 28, had had pleurisy of both sides, causing partial adhesions of both pleuræ and shrinking of the right side of the chest. Four and a half years later, he had catarrhal pneumonia of the left lung, ending in excavation at the apex, and tolerable quiescence; but at Cannes, in December 1877, his cough and expectoration increased, inducing vomiting; and the sputum was so offensive as to cause loss of appetite and diarrhoea, not only in the patient himself, but also in his attendants. For several months, he suffered from pyrexia, great loss of flesh and strength, and from

symptoms of septicæmia, chiefly induced by the offensive atmosphere in which he lived, which various antiseptics palliated but failed to purify. Dr. Marcet detected large quantities of lung-tissue in the expectoration, and found proofs of a considerable-sized abscess discharging through the left bronchus. The symptoms continued, and the patient came to London, where, in June 1878, Dr. Andrew Clark and Dr. Theodore Williams concluded, from the physical signs and the character of the expectoration, that, in addition to some cavities in the upper lobe, there existed either (1) a limited pyo-pneumothorax, or (2) a large superficial cavity in the lower lobe, the pleura being adherent, and, from the loudness of the cavernous sounds, their limited area, and the large quantity of lung-tissue found, they considered the latter supposition the most probable. In either case, tapping was recommended, and on June 18th Mr. Erichsen punctured the dense wall of the abscess between the sixth and seventh ribs, and evacuated a pint of fetid pus. The operation, though it gave rise to temporary but somewhat troublesome cutaneous emphysema afforded entire relief to the patient. The cough was reduced, the expectoration fell to two ounces in amount. All fever ceased, and with it all symptoms of septicæmia, including a fall in temperature, pulse, and respiration. The discharge from the drainage-tube was small and offensive, and neither in it nor in the sputum could any traces of lung-disintegration be found after the operation. The patient, who had extensive disease of the lungs, recovered sufficiently to drive out daily, and died, seven months after the operation, of thrombosis of the left pulmonary artery. *Post mortem* examination revealed a circumscribed pyo-pneumothorax on the left side, limited by very dense adhesions. The sac communicated by two openings, each of such size that the lung-tissue exposed actually formed part of the wall of the pneumothorax. The upper lobe contained two large cavities, communicating by a bronchus, the upper one opening into the pleura. The right lung showed partial adhesions, some old consolidation and fresh tubercle at the apex. Dr. Williams remarked that the limited form of the empyema had been caused by the successive attacks of pleurisy, and the pneumothorax arose from the pleural abscess bursting into the upper cavity, and thus discharging through the bronchus. Owing to the fistula being too small to admit free discharge, matter was retained, became fetid, and gave rise to septic symptoms and further ulcerative processes in the lung, which continued till the operation, which entirely changed the aspect of affairs, and converted an acute ulcerative empyema into chronic pneumothorax, adding several months to the patient's life. The difficulty of diagnosis lay in (1) the limited character of the pyo-pneumothorax; (2) in the loudness of the cavernous sounds, this being due partly to the large size of the pulmonary fistula and partly to the conduction of sound from the lower cavity; and (3) the character of the sputum, which was by no means simply purulent, but contained a quantity of lung-tissue.

FIRST INSENSIBILITY FROM THE INHALATION OF ETHER.

At a late meeting of the Therapeutical Society of

New York (*New York Med. Journal*, March, 1879), Dr. R. F. Weir, Chairman of the Committee on Surgical Procedures and Appliances, presented a report on the first insensibility from ether, as described by Dr. John H. Packard in the *American Journal of the Medical Sciences* for July, 1877.

Dr. Weir stated that a number of cases have been reported to the committee confirmatory of the statements of Dr. Packard, but certain differences were observed. No question as to the satisfactory degree of anaesthesia exists, but the duration of it in several instances exceeded the time allotted to it by Dr. Packard—occasionally reaching to three minutes; also, while all recollection of pain was done away with, yet at times the patients would by movement, and sometimes by cries, give evidence of sensation during the incision; and, still further, it was noticed by Dr. W. T. Bull and himself that, even when the insensibility was marked, muscular relaxation was oftentimes insufficient to permit of a reduction of a dislocation or a displaced fracture.

One case reported by Dr. Gibney shows that in chloroform inhalation the "first insensibility" exists—a point upon which Dr. Packard, from want of experience, was unable to speak. Dr. Weir adds that this "first insensibility," or, as it is commonly called in New York, "primary anaesthesia," has now become fully established in the practice of the New York and Roosevelt Hospitals.—*Am. Jour. Med. Sci.*

CODEIA AS A SEDATIVE.

No symptom is more distressing to a patient than frequent coughing, and none demands more judicious treatment on the part of the practitioner, if he would avoid undoing with his cough-mixtures all the good he is attempting by his more general therapeutic measures. In phthisis, the presence of anorexia makes us unwilling to give opium or morphia, and frequently, when we do so, we have reason to regret it. Many patients, especially gouty subjects and those who suffer much from derangement of the liver, are intolerant of opium and morphia. On account of these difficulties, I have been led to employ codeia in such cases, in the hope that it might be of service, and it has succeeded beyond my anticipations. In phthisis, it allays cough without disturbing the digestive system; and, in the other class of cases, I have found it tolerated when opium and morphia were not. As an instance of the latter, I may quote the case of a medical friend, a member of a gouty family, a frequent sufferer from migraine and derangement of the liver, and well aware of his intolerance of preparations of opium. He complained of a troublesome cough, depending on slight catarrh of the trachea and bronchi, and at my suggestion, tried codeia, with all the benefit and none of the ill effects of opium. I prescribe the drug in doses of a grain, dissolved in syrup of tolu. The French medical papers constantly contain advertisements of codeia syrup and probably it is well-known as a cough tincture in this country; but I was not aware, and others may have been ignorant as I was, that it has those advantages over the preparations of opium and its other alkaloids. I, therefore, venture to call attention to it. Its value in diabetes is, of course, fully recognised. ROBERT SAUNDBY, M.D., in *Brit. Med. Jour.*

SYPHILITIC EPILEPSY.

Dr. T. S. Dowse, in the *Practitioner* for October, 1878, gives a summary of his observations upon two hundred and seventy-four cases of epileptiform seizures of an undoubted syphilitic origin. As the result of acquired syphilis, Dr. Dowse believes epilepsy to be extremely rare, but in its hereditary form producing, as it appears to do, an unstable and defective evolution of the nervous centres, to a degree far beyond any other agency: primary idiopathic epilepsies are more due to hereditary syphilis than to any other causes. Acquired syphilis does not predispose a stable brain and nervous system to attacks of epilepsy, *petit mal*, or epileptoid seizures, unless under two conditions—namely, first from absolute organic change in the nervous substance (vessels included), and secondly, where albuminoid syphilis has so impaired the vaso-motor centres and vascular functions of repletion, exchange and repair, that blood becomes not only attenuated but loaded with effete products. Acquired syphilis has, in some cases, actually relieved unstable brains during the secondary stages, and for some years subsequently from the epileptogenous tendency, which, however, has returned with tenfold violence in later years. In other cases, a patient suffering from acquired syphilis sustains an injury to the head and becomes epileptic, whereas, had he not been syphilized, this would not have occurred. Dr. Dowse has met with several similar cases, in which, moreover, the epileptic habit has become confirmed and been transmitted to the offspring. In diagnosing syphilitic epilepsy we must first consider the two classes of epileptics—the one where the mind between the seizures is unaffected, as in such cases as Cæsar, Napoleon, and many others, and where there is more or less mental derangement between the attacks. It is to the latter class of cases that syphilitic epilepsies essentially belong. Should a man or woman be attacked with epilepsy between thirty and forty years of age, without any hereditary predisposition or a previous seizure, then a syphilitic origin may be suspected. If between the attacks there be more or less mental derangement, the diagnosis is simplified, and still more so if there be a paresis more or less profound, localized or unilateral, but gradually passing off after the epileptiform seizure. The reflex processes are rarely, if ever, completely absent. The iris may contract under the influence of a strong light; the lids close when the conjunctiva is tickled, and a state of sub-consciousness rather than a profound coma is a prominent feature from first to last. The stages of the attack are all ill-defined and merge the one into the other. Rarely is there the general tonic spasm with thotonism. Pallor rather than cyanosis is the facial exponent, and the fit is prolonged often many hours, with intervals of wandering, delirium and excitement. Foaming at the mouth is less common than a profuse flow of saliva, and all sorts of cries are associated with the seizure; but rarely, as Romberg expresses it, "Shrill and terrifying to man and beast."

As to albumen in the urine, it is present in but few cases; but epileptoid seizures, associated with albuminoid syphilis and a plentiful secretion of phosphatic albuminous urine, are not uncommon.

[Several valuable contributions have been made

to this subject during the last few years in the pages of the various medical journals, references to which, up to the end of 1876, may be obtained by turning to the *Medical Digest*, section 1307: 5; since then, Dr. Dreschfield, *Lancet*, February, 1877, p. 269; an able editorial review on Jacksonian epilepsy, *Lancet*, August, 1877, p. 171; and Dr. Ferrier, *Medical Times and Gazette*, April, 1878, p. 456, have added to the literature of the subject.—*London Med. Record*, Dec. 15, 1878.

CASE OF STRICTURE OF THE RECTUM TREATED BY EXCISION OF THE STRICTURE.

BY
D. LOWSON, M.D.

Mrs. S—, aged thirty-four, had complained for eight years of symptoms of stricture of the rectum; and though during that period she had been frequently under medical treatment, and had derived considerable relief, yet the improvement lasted only for a short time, and about two years ago she was suffering more than at any previous period. The motions, which had been narrowed for years, had become much more difficult to pass, and defecation could not be effected without severe straining and considerable pain, and was often accompanied with blood and matter. Hardened masses were felt along the whole course of the colon as far as the cæcum, disappearing after laxatives and the free use of the enema, and again collecting soon after the discontinuance of these measures. The stricture itself was felt about two inches above the anus, was hard and annular, and at some points ulcerated. It was movable on the coccyx behind, as well as on the vagina in front, and, just fitting the tip of the finger, it could be pushed upwards and drawn downwards freely within the surrounding structures. The symptoms all pointed to a case of simple stricture. There was no great irregularity of surface, and, after an existence of eight years, only a small extent of bowel was affected. There was no excessively fetid discharge, as is the case in most syphilitic or cancerous strictures; and, in addition, the patient was not suffering constitutionally, the appetite and general health being good.

Finding that in the course of former treatment dilatation had not been resorted to, and having first cleared away the masses of scybala filling up the large intestine, a process which I found considerably dilated the stricture, I gradually completed the dilatation by bougie. She was for the time relieved, but a month afterwards I found the stricture as before. The bougie was again resorted to, but the irritation caused by it became so great that its use had to be discontinued. Mild laxatives and frequent emollient enemata soothed and relieved the irritated bowel, but dilatation could not again be borne, and the symptoms of stricture became aggravated.

For twelve months the patient had been under treatment without any marked improvement in the condition of the stricture, and she now became very anxious to have something done for her permanent relief. Dilatation having proved unsuccessful, the idea of colotomy presented itself, but under the circumstances it seemed rather an extreme measure;

and excision of the lower part of the rectum, although strongly advocated by high authorities for cancer, has the disadvantage of destroying largely or entirely the action of the sphincters. The removal of the stricture alone seemed the most feasible operation. For, by cutting out the narrowed ring, and stitching together two pieces of bowel which were healthy and had sustained no loss of substance in their circumference by the ulcerative process, a union might be expected free from contraction; and approaching the rectum from behind by an incision extending from a little behind the anus to the tip of the coccyx, and by keeping as near as possible the mesial line, so as to run parallel with the fibres and divide into halves that part of the external sphincter which lies between the anus and coccyx, its action would not be ultimately interfered with, and the internal sphincter would be preserved entire. Mr. Jessop, of Leeds, who saw and examined the case minutely, considered it a very favorable one for operation, as did also Mr. Knaggs, of Huddersfield. Accordingly, on the 5th of December, 1877, having cut down in the mesial line in the interval between the coccyx and lower end of the bowel, I divided the posterior part of the external sphincter as much as possible into two lateral halves, and turning these aside with the intermingling fibres of the levator ani, I introduced the finger inside of the rectum, and pushing it firmly into the stricture, I pulled it down from its situation in front of the coccyx, and made it project backwards through the external wound. Reaching the wall of the rectum, and having dissected the surrounding structure from its lateral aspects as far forwards as the recto-vaginal septum, I cut the bowel through above and below the stricture, dissected the ring off the posterior vaginal wall, and stitched the two pieces of bowel together with catgut sutures. Two small vessels spouted, but did not require ligation.

After the operation the temperature gradually rose, reaching its maximum— 102° —on the evening of the third day, and, falling again, became normal two days after. The pulse corresponded with the temperature, being 120 the third day after the operation. The catheter had to be used for a fortnight. There was never any abdominal tenderness nor other symptom of peritonitis. The vaginal pipe of an ordinary Higginson's enema was introduced into the rectum on the conclusion of the operation, and the bowels were kept confined for five days. After this, however, diarrhœa came on, and the management of the wound became difficult. A small-sized Ferguson's speculum was introduced in place of the vaginal pipe, and through this the bowel was cleansed. The stools now became liquid and very irritating, were mixed with small scybala, and came away partly by the tube, but also by the wound, excoriating the integument in its vicinity. Opium had to be prescribed freely on account of the pain, and yet the nights were restless and the appetite became poor.

About three weeks after the operation the lower fragment of bowel gave way behind, probably from the continued pressure of the speculum, and immediately all the symptoms began to improve. There was now no pain except when the bowels were moved; there was considerable retentive power ex-

cept when the bowels were relaxed; the discharge became less irritating; the excoriations healed; and the blue line began to appear at the margin of the wound.

March 9th, 1878. The condition of Mrs. S— has greatly improved. The bowels now act regularly; there is neither pain nor straining at stool; the motions are natural in size, but flattened; and the sphincter power is good except when the bowels are relaxed, when she finds retention is not so perfect as formerly.

March 31st, 1879. A considerable amount of cicatricial structure has formed around the seat of the operation, and some contraction has taken place, but a medium-sized bougie passes easily and the motions without difficulty. The symptom complained of most is "painful sitting." To sit comfortably she is obliged to lean well forward, or inclined to one side in a semi-recumbent position. Except during an attack of diarrhœa, which she is sometimes subject to, her sphincter power is perfect.

The great difficulty in the case was the after-treatment. The passage of fæcal matter of a very irritating nature over the wound, and the tendency to diarrhœa common to most rectal operations, retarding the healing process, which seemed also to be delayed by the action of the internal sphincter, just as in the cases of fistula. There are few strictures situated so low down as to come within the range of the foregoing operation; but in cases of the sort I think that it might be advisable to perform colotomy in the first instance, so as to carry off the fæcal matter by the loin; then, after an interval, the stricture in the rectum might be removed, and a good union secured, and subsequently the artificial anus closed and the motions allowed to pass off by their former channel.

FUNCTION OF THE GLANDS OF THE STOMACH.

An ingenious attempt has been made by Heidenhain to ascertain the function of the several glands of the stomach in the dog. The operative proceedings in every case proved fatal to the animal within a month. They consisted in isolating, by section, a segment of the stomach, and bringing the edges together, so that the isolated portion was converted into a tube or sac, blind at the extremities, but with a small fistula in it. The edges of the stomach were also brought together, and the continuity of the alimentary canal was thus provided for. Heidenhain notices as a curious fact that the healing of the wound went on well in the sac, though the edges of the abdominal wound were much eaten away by the digestive process, owing to the escape of the secretion. The mucous membrane of an isolated portion of the fundus yielded a fluid partly composed of the tenacious mucus of the superficial epithelium, and partly of the thin fluid secretion of the glands. After filtration, the fluid was as clear as water, and occasionally feebly opalescent, but never yellow. It was always highly acid, and contained 0.45 per cent. of solids, which were partly of an organic, partly of an inorganic nature, the organic being chiefly pepsin. A slight haze appeared when it was boiled,

and also on the addition of alcohol, but concentrated nitric acid scarcely rendered it cloudy, and it did not assume a yellow color when heated; slight, and scarcely more than a slight, troubling of the fluid occurred on the addition of platinum chloride, neutral lead acetate, and tannic acid. It therefore appears to have been a solution of pepsin with very slight contamination of other organic substances. Careful examination demonstrated that the acidity was due to the presence of hydrochloric acid; the quantity determined from an average of thirty-six analyses made by Gscheidlen being 0.52 per cent.—a very high proportion, the amount given by Bidder and Schmidt being only 0.305 per cent., even when admixture of alkaline saliva had been carefully avoided. In regard to the process of secretion, Heidenhain found that mechanical irritation of the mucous membrane only effects an increase in the secretion in the parts locally stimulated, portions of elastic tissue or caoutchouc causing secretion in the parts touched. If, however, the material introduced into the stomach be of a nutritious character, and absorption occurs, the process of secretion is stimulated to take place in parts far remote from the point of contact. The absorption of water has only a transient effect. Heidenhain's experiments have a certain bearing on Schiff's charging theory, for he found that the amount of pepsin diminishes rapidly at the beginning of secretion, falling to its lowest point during the second hour, then rising again about the fourth hour, at which period it surpasses its original amount and then again gradually diminishes. This rise and fall occurs when the animal has been long kept fasting, and also when the meal has been given in the later stages of digestion, whilst secretion was still progressing. The secretion of acid and the secretion of pepsin do not run parallel. The results, then, of Heidenhain's experiments are, upon the whole, confirmatory of those of Klemensiewicz and others, and agree with the results of anatomical investigations, which show that there are two sets of glands in the stomach—one occupying the fundus and secreting an acid fluid, the other distributed in the pyloric region and secreting an alkaline fluid; the former appear to act intermittently, but the latter are continuous in their action.—*Lancet*.

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week cod liver oil mixtures and mixtures for diseases of the nervous system. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

COD LIVER OIL MIXTURES.

73. Cod Liver Oil Emulsion (CH. H.)

℞. Olei Morrhue.....
Aque Calcis..... aa fl. 3 8
Olei Cinnamomi..... gtt. 10
Mix. Dose : a tablespoonful.

74. Emulsio Olei Morrhue.

℞. Olei Morrhue..... partes 28
Glyconini (see No. 77)..... " 9
Spts. Ammon. Arom..... " 1
Vini Xerici..... " 20
Spts. Amygdal. Amar..... " 2

Mix. All to be taken by weight. The Spiritus Amygdalæ Amaræ is made by mixing 1 part of oil bitter almonds with 64 parts of alcohol. Dose : a tablespoonful.

75. Emulsio Ol. Morrhue Phosphorata.

℞. Olei Morrhue..... partes 20
Olei Phosphorati (1%)..... " 2
Glyconini..... " 7
Spt. Ammon. Arom..... " 1
Syrupi..... " 10
Acidi Phosphor. dil..... " 4
Spts. Amygdal. Amar..... " 2

All by weight. Put the glyconin into a mortar and add the oils to it in very small quantity at a time, triturating the mixture actively and constantly. Then add the other ingredients in the order in which they are named. On Spts. Amygd. Amar., see above under No. 74. Dose : a tablespoonful.

76. Emulsio Ol. Morrhue cum Calce.

℞. Olei Morrhue..... fl. 2
Aque Calcis..... fl. 1 1/2
Syr. Calcis Lactophosph..... fl. 1 1/2

Mix. Dose : a teaspoonful. (Dr. Bosley.)

77. Glyconinum (or Glyceritum Vitelli.)

℞. Vitellorum ovorum..... partes 4
Glycerinæ..... " 5

Beat or whip the yolks of the eggs, which must be fresh, in the usual manner, pour the liquid into a bottle, add the glycerin and shake them well together. One pint of cod liver oil requires about 4 fl. oz. of glyconin, to emulsionize it.

78. Mist. Ol. Morrhue (O. D. P.)

℞. Olei Morrhue..... fl. 3 16
Liquor. Potassæ..... fl. 3 2 1/2
Mellis..... fl. 3 3
Pulv. Acaciæ..... 3 1
Ol. Anisi..... gtt. 20
Ol. Menthæ Vir..... gtt. 18

Mix. Dose : a tablespoonful. (Dr. Winston.)

79. Ol. Morrhue Phosphoratum (B. H.)

℞. Olei Phosphorati (1%)..... grs. 100
Ætheris..... fl. 3 2
Olei Morrhue q. s. ad..... fl. 3 16

Mix. 233 minims, or practically, 1/2 fl. 3 contain 3/8 grain of phosphorus. The phosphorated oil (see No. 80) should be weighed, not measured.

80. Oleum Phosphoratum.

℞. Phosphori..... gr. 1
Olei Morrhue..... " 99

This is a one per cent. solution of phosphorus in cod liver oil, proposed by Dr. E. R. Squibb; see *Proc. Amer. Pharm. Assoc.* 1876, p. 474. It is made with the utmost care, and contains the full amount of phosphorus. It is put up in 2 oz. vials, securely corked. If one of these vials is to be opened, and only a portion of the contents is to be used, a few drops of ether should be poured into the vial, before

it is again corked and sealed. If a fine film should form on the surface or at the bottom, the oil must be poured out so as to leave this in the vial. Should this film increase, or much of a precipitate make its appearance, a fresh bottle should be used.

It is best to add the whole contents of a bottle at once to sufficient cod liver oil, to be ready for administration. The latter may be kept on hand in full and well-closed bottles, which are to be kept in the dark.

When using the phosphorated oil, it should always be taken by *weight*.

MIXTURES FOR DISEASES OF THE NERVOUS SYSTEM.

81. *Delirium Mixture.*

R. Potass. Bromid.....	3 4
Tinct. Valerian. Amm.....	fl. 3 1
Tinct. Lupulinæ.....	
Tinct. Digitalis..... aa	fl. 1 1/2
Aquæ q. s. ad.....	fl. 5 4

Mix. Dose: a tablespoonful. To be used with care, and effects to be watched.

82. *Hammond's Mixture.*

R. Quinæ Sulph.....	
Ferri Pyrophosph..... aa	3 1
Strychniæ.....	gr. 1
Acidi Phosph. dil. (tribas.)..	fl. 3 2
Syrupi Zingiberis.....	fl. 3 2
Aquæ q. s. ad.....	fl. 5 4

Mix. Dose: a tablespoonful.

83. *Mistura Anti-Epileptica.*

R. Sodii Bromidi.....	
Potass. Bromidi.....	
Ammon. Bromidi..... aa	3 3
Potass. Iodidi.....	
Ammon. Iodidi..... aa	3 1 1/2
Ammonii Carbon.....	fl. 1
Tinct. Calumbæ.....	fl. 1 1/2
Aquæ q. s. ad.....	fl. 8

Mix. Full dose: One and a-half drachms before each meal, and three drachms at bedtime. (Dr. Brown-Sequard.)

84. *Mistura Cannabis* (INS. AS.)

R. Tinct. Cannabis Ind.....	m 10
Spiritus Menthæ Pip.....	m 1
Aquæ q. s. ad.....	fl. 3 1

Mix. One Dose. To be taken thrice daily after meals.

85. *Mist. Epileptica (Belladonna)* (INS. AS.)

R. Potass. Bromidi.....	grs. 25
Tinct. Belladonnæ.....	m. 5
Aquæ q. s. ad.....	fl. 3 1

Mix. One Dose: to be taken thrice daily.

86. *Mist. Epileptica (Conium.)* (INS. AS.)

R. Potass. Bromidi.....	3 1/2
Ext. Conii Fl.....	m. 15
Aquæ q. s. ad.....	fl. 3 1

Mix. One Dose: to be taken thrice daily.

87. *Mist. Epileptica (Ergota.)* (INS. AS.)

R. Potass. Bromidi.....	
Ammon. Bromidi..... aa	3 1/2
Ext. Ergotæ Fl.....	m 15

Mix. One Dose: to be taken thrice daily, in cases characterized by considerable maniacal excitement

following the attack, indication of cerebral congestion, and especially where hæmorrhage is feared. (Dr. Chas. R. Smith.)

88. *Mistura Sedativa* (INS. AS.)

R. Chloralis.....	grs. 15
Extr. Conii Sem. Fl.....	
Extr. Hyoscyami Fl..... aa	m 15
Aquæ q. s. ad.....	fl. 3 1

Mix. One Dose: to be taken thrice daily,, after meals.

89. *Mistura Phosphori.*

R. Phosphori.....	gr. 1
Alcoholis Absoluti.....	fl. 3 5
Glycerinæ.....	fl. 1 1/2
Alcoholis.....	fl. 3 2
Spts. Menthæ Pip.....	fl. 3 1

Dissolve the phosphorus in the absolute alcohol by the aid of a gentle heat; then add to it the glycerin, alcohol and spirits of peppermint, previously mixed and slightly warmed.

One fl. 3 contains $\frac{1}{8}$ grain of phosphorus. (Dr. J. Ashburton Thompson.)

90. *Syr. Hypophosphitum Co.*

R. Calcii Hypophosphitis.....	gr. 256
Sodii.....	" 192
Potassii.....	" 128
Ferri Sulphatis.....	" 185
Acidi Hypophosphorosi (1.036)	fl. 3 9
Sacchari.....	fl. 12
Aquæ q. s. ad.....	fl. 5 18

Mix. Dose: a teaspoonful.

91. *Tinctura Phosphori* (B. H.)

R. Phosphori.....	grs. 32
Alcoholis Absol.....	fl. 3 46
Tinct. Vanille.....	fl. 3 1
Ol. Aurantii Cort.....	fl. 3 3
Alcoholis Absol. q. s. ad...	fl. 3 48

The phosphorus is digested with the absolute alcohol, with exclusion of air, until dissolved; then the flavoring ingredients are added, and finally the bulk is made up with absolute alcohol to 48 fl. oz.

12 fl. drachms contain 1 grain of phosphorus.

30 minims contain $\frac{1}{4}$ grain of phosphorus.

Dose: 20-40 minims, corresponding to $\frac{1}{8}$ - $\frac{1}{4}$ gr. of phosphorus.

92. *Quinæ's Mixture.*

R. Quinæ Sulphat.....	
Ferri Phosphat..... aa	3 1
Strychniæ.....	gr. 1
Acidi Phosph. dil. (tribas.)..	q. s.
Syr. Zingiberis.....	fl. 3 2
Aquæ q. s. ad.....	fl. 3 4

Mix. Dose: a teaspoonful.

NEWS ITEMS AND NOTES.

Sixth Decennial Pharmacopœia Convention.—To the several incorporated State Medical Societies, the Incorporated Medical Colleges, the Incorporated Colleges of Physicians and Surgeons, and the Incorporated Colleges of Pharmacy, throughout the United States:

By virtue of authority devolved upon me, as the last surviving officer of the Pharmacopœia Convention of 1870, I hereby call a General Convention to meet in Washington, D. C., on the first Wednesday in May, 1880, for the purpose of revising the Pharmacopœia of the United States.

For the information and guidance of all parties interested, I refer them to the rules adopted by the Convention of 1870, to be found on page 11 of the Pharmacopœia of the United States, and request their compliance with the spirit and intention of the said rules.

JAMES E. MORGAN, M.D.,

No. 905 E Street Northwest, Washington, D. C.

The National Board of Health has appointed a Commission to visit the West Indies this Summer and make a thorough investigation as to the cause, symptoms, treatment and prevention of yellow fever.

Refilling of Prescriptions.—We call our readers' attention to the following section in the new Wisconsin Medical Act:

If any physician practicing medicine in this State shall write, or cause to have printed upon any prescription, the words, "No Duplicate," any druggist, apothecary, or vender of medicines who shall duplicate a prescription so written or printed upon, without the consent of the physician writing the prescription, shall, on conviction thereof, be subject to a fine of ten dollars (\$10) for each and every offence, together with the costs of suit.

Harvard University.—Dr. Reginald H. Fitz has been elected to the chair of Pathological Anatomy in the Medical Department, vacated by the death of the late Dr. J. B. S. Jackson. Dr. Fitz has been for several years Assistant Professor, and is eminently qualified for the succession.

A Doctor "Called."—Prof. E. W. Jenks, of the Detroit Medical College, has been invited to the new chair of the Chicago Medical College, entitled Medical and Surgical Diseases of Women and Clinical Gynecology.

Sanitary Condition of Newport.—In view of the prevalence of scarlet fever at Newport, R. I., Dr. H. R. Storer has called the attention of the Board of Aldermen to their neglect of sanitary precautions in that town. He says the board has refused to transfer its powers to a competent Board of Health; children of infected families are allowed to attend public and private schools; open funerals are permitted, and alleged defects in the construction of the sewers are not corrected.

We clip the following from "Our Confessional," in the *Brit. Med. Journal*:

The Use of Ergot.—The young practitioner is apt to give ergot to assist labor, instead of using the forceps, as an experienced man would do. I am conscious of having in at least two cases, at the beginning of my practice, caused or assisted in the death of the infants by using ergot after the amniotic fluid was evacuated. No efforts would rouse them to life. I always reproach myself with these. Let them be a warning to my juniors.

OBSTETRICIAN.

A Death from Hydrophobia was recently recorded in Dublin; it was that of a girl aged six, who was

admitted into the City of Dublin Hospital from Stillorgan, a village adjacent to that city. The deceased showed symptoms of the disease thirty-nine days after being bitten by a dog, and succumbed three days afterwards.

The Use of Opium in Children's Diseases.—Dr. Charles West, in his *Diseases of Infancy and Childhood*, warns the practitioner against the use of preparations containing opium, in convalescence from fever in children, or in cases of diarrhœa, where a state of excitement often rapidly changes into coma. A case illustrating both these warnings occurred to me while attending a case of measles complicated with diarrhœa, during my dispensary course. I ordered a few grains of compound ipecacuanha powder to control the diarrhœa. The child was certainly in a very exhausted condition. On calling next day I found that after getting the powder she became drowsy, fell asleep, and never awoke. Let this be a lesson to young practitioners to read Dr. West carefully.

OPIMUM.

Military Medical School.—From St. Petersburg it is announced that it has been resolved, with the approval of the Emperor, that, from the commencement of the next scholastic year, the Medical and Surgical Academy of St. Petersburg shall be transformed into a purely military medical establishment. The students, whose number will be limited to five hundred, will be regarded as public servants, and as such will have to take the oath of allegiance. Instruction will be free, and in return for this advantage, the students will be required to serve eighteen months in the army for each year they pass in the academy.

The Effects of Tobacco.—My own experience of the evil effects of great tobacco smoking and chewing is that these are among the most prevalent causes of chronic diseases in the male sex. Of course I do not mean for one moment to compare the dangers caused by the use of tobacco with those we are so familiar with at the bedside, in cases of diseases caused by alcohol. Tobacco does not cause cirrhosis of the liver, nor disease of the lungs and heart in the same way or with the same frequency as chronic tipping does. But there are nevertheless several well-marked diseases caused by the taking in of nicotine into the blood, whether through the absorbents of the mouth in smoking, or, more rapidly, in the case of chewing. First of all the digestive organs are often greatly impaired by the use of nicotianæ tabacum. The teeth are frequently blackened and the gums swollen in great smokers and chewers. Caries of the teeth is favored by the various acids produced by the burning of tobacco, and mingled with the saliva. Duskiness of the fauces and relaxed sore throat are far too prevalent among smokers, as good observers have long noticed. Dyspepsia caused by nicotine is so common as to be hardly worth referring to. Diarrhœa, or more frequently constipation, is induced by the use of tobacco in many instances. And I must not omit, in passing, the remark that the male sex who smoke are alone, with the very rarest exceptions, the subjects of epithelioma of the lip. I once saw such a case in an old Irish woman who was a constant pipe smoker.—Dr. C. R. Drysdale, of London, in the *Med. Press and Circular*.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CLINICAL LECTURE.

Delivered in the Medical Department of the University of the City of New York.

BY

MONTROSE A. PALLEN, M.D.,

Professor of Gynecology.

I. ERGOT AND ERGOTIC POISONING. II. CYSTOCLE AND RECTOCLE. III. ELIAC CELLULITIS. IV. RETROFLEXION WITH STRICTURE OF THE RECTUM.

(Reported for THE HOSPITAL GAZETTE.)

ERGOT AND ERGOTIC POISONING.

GENTLEMEN:—The case before us is quite familiar to many of you, because of the history she gave of the enormous quantities of ergot she took before presenting herself at the clinic. The hemorrhages for which she was ordered the ergot have all ceased, as the cause was removed when I torsioned a small polypus from within the cervical canal. It is quite surprising to observe the large quantities of blood lost during menstruation, and sometimes during the intermenstrual periods, in consequence of the hyperemia invited to the endometrium by the implantation of a polypus or polypoid growth in either the cervical or corporeal lining mucous membranes. And it is equally surprising to notice how rapidly these women recover from such exhaustive bleedings;—nature seems to set up a compensation repair. As these polypi grow, so does the mucous membrane stretch, and the vessels ramifying upon or under it develop in size, become thin walled and rupture easily. Speculum examination in this woman reveals a healthy mucosa, and her last menstrual period having been normal as to duration and the quantity of blood discharged, she may be dismissed as cured. The reason this polypus was torsioned was because of its small size and slender pedicle. A broader base of attachment would have been separated by the ecraseur or even the scissors, as the bleeding could have been controlled within the cervical canal by tamponing with iron, styptic cotton, or the thermo-cautery. I would like to direct your attention to the large quantities of ergot (half an ounce of Squibb's Fld. Extract) she swallowed daily for several months, during the menstrual periods, which usually lasted from ten to twelve days. In this case the medicine not only did no good, but fortunately was innocuous. On the contrary, I received a letter this very day from a patient who lives in the country, in whom ergot acted most banefully. Last Saturday this lady came to my office to see me in consequence of excessive debility, following an attack of bronchitis, which had supplemented an endometritis, for which I had been treating her some ten weeks prior to her bronchial attack a month since. The bronchitis left her very prostrate, and she had night sweats, so much

and so frequently, that she was compelled to change her clothing four and five times every night. To overcome this distressing condition, I ordered her 40 drops Wyeth's Fld. Ext. of Ergot, and 40 of a grain of atropia, and told her to take a dose at mid-day when she got home, another at bedtime and another on the following morning. She took the first dose as ordered and the second at nine o'clock P. M. Twenty minutes after the second dose she fell on the floor in a convulsion. After the convulsion she vomited freely. Since then, she writes me, her head has been nearly wild with pain; that after the convulsion she took a cathartic, as ordered by me, and that after this had operated freely several times, she took another dose of the ergot and atropia, after which she had another convulsion and vomited again. The third dose was followed by the same symptoms.

The question now comes up, whether the convulsions were caused by the small doses of atropia or by the ergot. I incline to believe that the case was a marked example of one of those peculiar forms of ergotic poisoning, in which the convulsion is caused by the sudden contraction of the vessels of the brain. You may learn one profitable lesson from this experience of mine, viz: Never use doses of ergot above the medium in quantity, in cases whose susceptibility to the drug you have not tested.

CYSTOCLE AND RECTOCLE.

This patient was operated upon five weeks since for rectocle. You will remember I removed an elliptical portion of the posterior vaginal wall, that portion of the tissue just in front of the recto-vaginal septum. The longer axis of the ellipse was about two inches, and the transverse about an inch and a quarter. Instead of dissecting away this substance, as is usually done, I crushed it partially with the ecraseur, enough to make mechanical thromboses in the vessels; formerly I would have cut off this redundant tissue with the scissors or knife, but latterly I have preferred to burn away such structures with the thermo-cautery, because it *ought to prevent* (and usually does) any possibility of hemorrhage, and I have never seen any sepsis follow the actual cautery. Yet, notwithstanding ecrasement and cauterization, she had a slight hemorrhage after she had been removed from the amphitheatre. The bleeding was from the upper margin of the wound, and when I examined the distal extremity of the ecraseur I discovered that its blades were sprung; they did not come up even, and this explains why the bleeding ensued after crushing by ecrasement—it was incomplete. You may now very pertinently ask why it followed the actual cautery. I can only explain it from the fact that the platinum tip was too hot; it was at a white heat, instead of a dull red. It cut through, instead of frying the tissues. I was not as careful to have it at a red heat as I would have been had I known that the blades of the instrument were sprung, because I assumed that the crushing of the structures had caused retraction of the vessels and mechanical thromboses in them. The hemorrhage, however, was easily controlled by the introduction of stitches, every alternate end of which was tied to its opposite, thereby *pursing* the wound and approximating its slightly gaping upper extremity.

I hoped that the cystocele would have been cured in consequence of the contraction in the size of the vagina, usually following an operation of this nature for rectocele.

I find to-day, upon examination, that the vagina has been considerably diminished in size. Her perinæum—entirely reconstructed—is very long; preternaturally long. The posterior wall of the vagina is perfectly healthy looking, except where, in its centre, the cicatrix left by my operation remains.

Has the operation for rectocele cured the cystocele? In cystocele, you know, the bladder most frequently drops down in consequence of the giving way of the sustaining power of the vagina. I find that but very little cystocele is left—it is, in fact, scarcely larger than a hickory-nut. I will, upon a future occasion, remove more of the vagina anteriorly. The cervix uteri is much smaller, and there is but slight retroflexion of the uterus. This is one of the best results I have ever seen following an operation on the posterior wall of the vagina. The result is much better than it would have been had I dissected out a portion and simply closed it with stitches without using the cautery. The burning out of the superabundant tissues leaves an inelastic cicatricial band, forming a better support than the mere mucous membrane. The perineal body proper has been reestablished. The tissues between the mucous membrane of the vagina and the anterior wall of the rectum have been filled up, producing a much better perineum than before. In overcoming the retroversion the symmetry of relationship between the uterus and vagina may cure the cystocele and so cause it to disappear without any farther operation.

The result has been somewhat remarkable also as regards another point, viz., the wound in the wall of the vagina has healed by granulation, and not by the primary adhesion process.

The woman will be ordered a properly adjusted pessary, *to be fitted after the uterus has been placed in the proper position.* This replacement of the uterus is to be accomplished as much by the woman as by the physician. The woman is put in the genu-pectoral position, whereby the intestines roll forward, and when the perineum is retracted the air rushes into the vagina and balloons it out, supplying a *vis-à-tergo*, and the womb is brought into its proper position. If, however, it is imprisoned by the muscular stræ of the sacro-uterine ligaments, it will be necessary to force it forward by pressing upon it below the cul-de-sac of Douglas. Failing in this, it becomes necessary to balloon the rectum by means of the Sims speculum, when the womb will usually fall into place. After the uterus is properly in place, a pessary should be introduced.

If you get a pessary in the shops, you will probably find that it is either too small or too large—the average pessary being the most unanatomically constructed instrument that I can imagine. You will never find a woman's pelvis which will correspond with the pessaries made in the shops. The India rubber companies, in particular, manufacture a most impossible pessary.

In fitting a pessary, measure first the length of the vaginal canal. From the pubis to the posterior

fornix the average length is three inches. What will be the result if we introduce a pessary such as we see in the shops. It will press the posterior wall of the vagina against the rectum or the anterior wall against the urethra, so that if it does not prevent micturition, it at least is a bar to the fecal matter from escaping. Again, such a pessary compresses the blood vessels, causing hyperæmia of the vaginal and sub-mucous tissues, congestion of the vagina; and leucorrhœa, by increasing the action of the follicles. Besides all these things, we do not, after all, get the good results which we wish, since the uterus becomes to a certain extent independent of the vagina, owing to the widening of the walls of the upper part of this canal, which follows the use of such a pessary.

Therefore, I say, always measure the length of the vagina first, and then map out the shape of the sub-pubic space. Then grease a vulcanite ring well and mould it in the flame of the alcohol lamp to fit the vagina, just as the hatter moulds his hats to the customer's heads.

This is a matter of very great practical importance. The best men often fail to fit a patient with a pessary, simply because they fail to map out the vagina. No pessary will do the least good unless we first get the uterus into the proper position.

PELVIC CELI ULITIS.

This patient has been suffering from subinvolution of the womb for the past eleven months. Five months ago she had a miscarriage. We gave her hot water injections and general tonics, and she left off coming to the clinic feeling much better.

She returns to us again to-day complaining of pain in her back and abdomen, which is worse after exertion. She is just thirty years of age. She thinks that she may be pregnant and wishes to get a definite opinion in the matter from me. There has been no menstrual flow for seven months, and she suspects another pregnancy, but on the other hand she has felt no life. If there were a fœtus within the uterine cavity, it certainly has made no appreciable movements. It may be a case of retention of menses. You know that there is a very decided difference between retention and suppression of menses. The cell action of the ovary may go so far as to develop a Grâfian vesicle, but may stop short of menstruation, or there may be no action of the ovaries whatsoever; or, should there be retention, the neck of the womb may be closed, or there may be atresia of the vaginal canal. In suppression of the menses there is no secretion whatever, in retention the exit of the flow is impeded in consequence of obstruction.

What is the condition here? Are the menses suppressed or retained? How are we to exclude the possibility of pregnancy? Here, as in pregnancy, the menses stop, the breasts grow larger, the abdomen increases in size. All these are, however, but presumptive evidences, and there is but one absolute, positive, actual symptom, the sounds of the foetal heart. The gynæcologist does not *know* that the fœtus is there until he hears this sound. The best men have mistaken ovarian tumors and uterine fibroids and polypi for pregnancy. The late Prof. Bedford, of this University, tells the story of a woman whose abdomen increased in size, who was

shunned by polite society as an outcast, who was examined by physicians and pronounced to be pregnant; who finally came to America, and saw Dr. Bedford, who, after the poor, dying girl's mind had been destroyed by her woes, discovered the case to be undoubtedly one of fibroid tumor. The hymen and uterus were both virginal.

In the case before us, upon deep pressure, I feel a peculiar hard body in the neighborhood of the uterus which may possibly be a fetal head, or breech, or on the other hand it may be something entirely different. The vagina does not feel hypertrophied as in pregnancy, nor has the cervix that spongy elastic feeling. The abdomen is enlarged, indeed, but not as much as we should expect were it to contain a seventh month fetus. By lifting up this large mass of fat in the abdominal walls, and pressing my hand well down into the pelvic cavity, I am unable to make out any uterus at all.

I am disposed to believe that the case is not one of pregnancy. Many of the most common symptoms of pregnancy are absent, although others are present. I fail to find that hypertrophy in the labia minora and in the vaginal walls, which usually attends the seventh month of pregnancy. There is no spongy feel to the cervix, which no tumor can imitate. The abdomen may be enlarged owing to the relaxed condition of its walls, and the deposits of fat in the omentum. What is my conclusion? I cannot make as careful and thorough an examination as I could desire, for the woman will not be quiet, and the more deeply I press down into the region of the uterus the more pain she suffers. If I were to introduce a sound I might produce abortion. My diagnosis, however, is presumably at least, against pregnancy. I think there is some mass lying in the left part of the pelvis which ought not to be there. It is a globular body not like the head, or breech of a child. If it were a child I ought to be able to distinguish its outline through the abdominal walls. It will probably turn out to be a case of œdema, or something of a similar nature between the folds of the left broad ligament. Whether it is a result of the obstruction to the return of blood, or to cellulitis I know not; one thing I am quite sure about, and that is that there has been an effusion into the left broad ligament which divides the left part of the pelvis into two cavities. The suppression of menses is owing to some pathogenesis in the left broad ligament.

RETROFLEXION, WITH STRICTURE OF THE RECTUM.

When this woman first came here, five months ago, she had retroflexion, stricture of the rectum, and chronic rectal catarrh. She had general treatment, as well as electrical seances twice a week for ten weeks, at the end of which time she was reported as being very much improved. She now comes complaining of frequent mucous passages from the rectum. The question is as to whether mucus is a result of the chronic rectal catarrh produced by the retroflexion. True, stricture of the bowel might result from ulceration or adhesion, but is generally only seen in cancer and in syphilitic deposits. In this woman digital explorations reveals a very marked retroflexion. By pressing upon the posterior wall of the vagina, I discovered that the anterior

wall of the rectum is very tender and that the gut is the seat of spastic contractions. There is some effusion into the connective tissue between the rectum and vagina. There is also a very minute fissure of the anus which will develop all manner of difficulties. Enlargement of the veins and sometimes prolapse of the mucous membrane of the rectum is called a hemorrhoid. I never saw one of these hemorrhoids, where there was not a tendency to the formation of a fissure—a raw slit in the mucous membrane, as you see markedly developed here.

I imagine in this instance that the stricture of the rectum is dependent upon the retroflexion, and that, when the woman gets on her hands and knees and I can press the uterus forward, the stricture will disappear. Yes, it is just so. Now, gentlemen, I have seen these cases treated by the daily introduction of bougies into the bowels, of gradually increasing sizes. Of course such treatment is utterly without avail. The sub-rectal effusion and the rectal stricture will both persist so long as the retroflexion remains.

The proper treatment in this case should consist in keeping the bowels well open by enemata. In addition to these, the woman should be daily put in the genu-pectoral position and her uterus thrown well forward until it gets into a position in which it can be retained by a pessary. Such patients as these are naturally and habitually constipated, the toleration of the rectum being really wonderful.

A very excellent treatment of these cases is by filling the rectum with very large quantities of hot water, as the bowel can be educated to be very tolerant, thereby unfolding the rugæ, or rather expanding them, so that the very bottom of the rugous fissures can be washed out, and any mucosities or pus cleansed therefrom. After the gut is thoroughly washed and the mucous membrane freed from hypersecretions, it is proper to touch the eroded or ulcerated spots with nitric acid, nitrate of silver, or even the milder non-caustic astringents. This is easily accomplished by dilating the rectum with the Sims speculum, and the applications can then be made as deftly as in the vagina or the throat. But all treatment will be useless, if we fail to overcome the cause, to get rid of retroflexion—the fundus of the uterus here jams the anterior upon the posterior wall of the rectum—the hyperamia produced by this, as well as the accumulated feces above, produces rectal catarrh. An apparent stricture has ensued, which is in reality no stricture at all, but is a symptom of obstruction, giving rise to the very distressing conditions of the rectal tenesmus and dysenteric discharges. The prognosis is favorable, and in a few weeks we will see her very much better and improved in every way.

ORIGINAL ARTICLES.

ON SPASMODIC STRICTURE OF THE URETHRA.

A REPLY TO DR. F. N. OTIS.

BY
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An article appeared in THE HOSPITAL GAZETTE

lecture on Spasmodic and an Inflammatory Stricture, published by me in the same journal of February 13th. The article contains so many misstatements, that I feel desirous to correct them, and to offer a few words in defence of the ground I have taken in the controversy between us. I will endeavor to notice, *seriatim*, the points in Dr. Otis's paper which I wish to make the subject of either comment or explanation.

1. Dr. Otis expresses much surprise that his peculiar views concerning spasmodic urethral stricture, which he had so often and so strenuously advocated during the past six years, had excited "no public notice;" and says he had begun to hope that his "formidable array" of facts had been "quietly accepted" by "all fair-minded and intelligent surgeons." His surprise was more reasonable than his hope; for, while it is true that his views are not even mentioned by standard surgical authors, such as Van Buren and Keyes, Ashhurst, Thompson, Holmes, Erichsen and Bryant—all of whom have published treatises on surgery since these views were set forth—this very fact might perhaps indicate that they had been quietly *ignored*, rather than quietly accepted, by the more sober-minded representatives of our profession. The lecture which I published, was intended especially to guard the younger medical men against the effects of what I honestly believed to be unsound teaching, the influence of which I thought might prove highly injurious, if allowed to go without a protest.

2. I am charged with having erroneously ascribed to Verneuil, the invention of a theory which originated with Civiale. But, what theory? Dr. Otis says, "the theory of reflex action, applied to urethral difficulties"—a somewhat vague, though comprehensive phrase. The credit of priority in this matter seems to have been to Dr. Otis a kind of stumbling block. At first he thought *himself* entitled to it; long afterward, through the "careful search" of an "accomplished friend," he finds that he was anticipated nearly thirty years ago by the celebrated Civiale, with whose classic writings he tacitly admits that he first became acquainted in May, 1878. An awkward confession, truly, from a Professor of Genito-Urinary Diseases! He then offers an humble apology to Civiale, as the one who first advanced the "theory of reflex action" as "applied to urethral difficulties," although a little careful study would have taught him that Civiale neither deserved nor claimed any credit for originality in this respect. Indeed, Civiale does not employ the phrase "reflex action," but uses the word "sympathy," as it was used by the older writers, to denote the causal relation between morbid affections having their seat in parts of the body more or less remote from one another. These reflex, or sympathetic disorders connected with the genito-urinary apparatus did not escape the notice of Van Swieten, who, more than a century ago, observed that calculi, when arrested in the ureters, might cause such irritation of distant parts as to mask the primary disease. He reports the case of a man in whom the descent of several small calculi caused, as the earliest symptoms, pain in the scrotum and testicle, and afterward in the back part of the ilium. Chopart,¹ when describing

the ureter, says, "The irritation is not confined to the ureter, but reaches to the kidneys, the bladder, and the urethra; it extends often, indeed, to the spermatic vessels, the testicles, and along the thigh." John Hunter, writing in 1786, concerning irritation of the bladder as a sequel to gonorrhœa, remarks: "The irritation of the bladder sometimes continues after every other symptom has ceased. * * * It may arise from its connection with other parts, such as the urethra or prostate gland, for a stricture in the urethra coming on will prove the cause of its continuance," etc¹. Again, "I have seen a chance of the prepuce produce a pain in the urethra in making water, which most probably depended upon a sympathy similar to that by which the application of venereal matter to the glans produces a discharge from the urethra, as was observed above."² Also, "I have known the urethra sympathize with the cutting of a tooth, producing all the symptoms of a gonorrhœa."³

Edward Home, in 1803, describes "Sciatica in consequence of Stricture," and relates at length two cases, in both of which the nervous affection disappeared upon the cure of the primary disease.¹ He also devotes a section to "Strictures producing a diseased state of the surface of the tongue, which disappeared upon the removal of the stricture."² Marshall Hall writes in 1847,³ "A minute calculus situated high up in the urethra has induced such contraction of the sphincter ani, as almost to close the canal. A ligature upon a hemorrhoidal tumor has induced retention of urine. In a little boy, the nephew of Dr. Heming, strangury was induced, in the most unequivocal manner, by dentition. The case was supposed to be calculus. It was relieved at once by effectually cutting the gums." Lastly, Brodie's well-known case deserves to be cited: "A gentleman consulted me concerning a pain in one instep. The pain was severe, causing lameness, so that he walked with difficulty; but there was neither swelling, nor, except the pain, any mark of inflammation. I prescribed some remedies, which, however, were of no avail. One morning he called on me, still suffering from the pain in the foot, and so lame that he could not get out of his carriage and walk into the house without the assistance of his servant. Now, however, he complained of another symptom; he had difficulty of making water, and a purulent discharge from the urethra. He had labored under a stricture of the urethra for many years, and had occasionally used bougies. Of late the stricture had caused more inconvenience than usual; but he had abstained from mentioning it, thinking that

¹ *Maladies des Voies Urinaires*, Paris, 1830, vol. I., p. 309.

² *A Treatise on the Venereal Disease*, by John Hunter. London, 1788, p. 107.

³ *A Treatise on the Venereal Disease*, by John Hunter. London, 1788, p. 60.

⁴ *A Treatise on the Venereal Disease*, by John Hunter. London, 1788, p. 33.

1. Home on Stricture, London, 1803, vol. II., p. 271, et seq.

2. *Ibid.*—Vol. II., p. 306, et seq.

3. *Memoirs on the Nervous System*, London, 1837, *mem* 2, p. 99.

lived of the pain in the foot before treatment was adopted on account of the stricture. Under the circumstances I introduced a bougie, which penetrated the stricture and entered the bladder. Immediately on the bougie having been used, the pain in the foot abated; and in less than a quarter of an hour he left the house free from pain, and walking without the slightest difficulty. This happened some years ago, but I have seen the patient at intervals ever since; and from a most careful examination of his case, he and I are both satisfied that the pain in the foot is connected with the disease in the urethra, and we have never found anything to relieve it except the introduction of the bougie."¹

The authors above quoted all wrote before Civiale. It is therefore evident that Dr. Otis is not well informed, when he states that "the theory of reflex action applied to urethral difficulties was first advanced by Civiale."

The theory attributed by me to Verneuil is very distinctly stated in my paper. It is that which denies the comparative frequency of deep-seated organic urethral stricture, asserting that what appears to be such, is commonly a contraction of the canal, due to a spasm of the compressor urethræ muscle, such spasm being the result of a reflected irritation from one or more organic strictures situated in the penile portion of the urethra. This theory, which clearly does not belong to Civiale, was, as I have stated, advanced by Verneuil in 1866, seven years before it was announced by Dr. Otis, without any acknowledgement of his indebtedness to the man whom he is pleased to style "Chief of French Surgeons of to-day." Evidently, Dr. Otis is not so familiar as we might suppose he would be with the writings of one who thus commands his admiration.

3. I am quoted as having said of Folet, that "he had mistaken the triangular ligament for a muscular spasm." This unmeaning sentence was composed by Dr. Otis, and cannot be found in my paper. A writer may be pardoned if he fails to understand the meaning of his opponent's language; but, in pretending to quote it, he has no right to enclose with quotation marks a sentence of his own invention.

4. Dr. Otis ridicules the idea of testing the theory of spasmodic stricture by an appeal to pathological anatomy; and triumphantly inquires what I would consider to be "the pathological anatomy of a spasm." This question betrays a misapprehension which might easily have been avoided. I have not asked for the anatomical evidence of a spasm, but have simply demanded such evidence in favor of the theory of spasmodic stricture, this theory being based upon the alleged relative frequency of organic stricture in the penile portion of the urethra. So far as we at present know, deep-seated strictures are common, while anterior strictures are rare. The contrary is asserted to be the case by the advocates of Verneuil's theory; and although it may be perfectly true, it cannot be accepted as a scientific fact, in the absence of evidence derived from morbid anatomy. Verneuil himself understood this point very clearly; and that was the reason why he brought the

where, otherwise, it would have been out of place.

I may remark, in passing, that if those who are cutting and curing organic strictures by the hundred, and who seldom see a meatus urinarius which they consider normal, would pay a little more attention to the study of pathological anatomy, they would add weight to their testimony, and obtain knowledge which might induce them to modify their opinions. The frequency with which urethral stricture is said to be met with nowadays, calls to mind the account of a rectal specialist who practiced in the western part of England in 1844, and who claimed to treat so extraordinary a number of cases of stricture of the rectum, as to cause a layman to send a communication to the *Provincial Medical Journal*, stating that the disease was endemic in the locality where this practitioner resided, and advising strangers to avoid the place, inasmuch as nearly every person who went there became attacked.

5. Dr. Otis is not aware that any surgeon has assumed the association between penile and spasmodic stricture to be *invariable*. I therefore quote for his information the following: "Dans tous les cas de rétrécissement pénien, il existe un deuxième, arrêté à 13 centimètres du méat, au commencement de la région musculieuse, à l'entrée du col urethro-vesical."¹

6. I am blamed for dogmatising on the subject of spasmodic stricture, and for declining to scrutinise the cases that have been reported. On the contrary, I have sought earnestly, but in vain, for clinical evidence in support of Verneuil's theory; while I have been unable to accept the reported cases as being free from errors of observation. In short, we need satisfactory proof, not so much of the theory of spasmodic stricture, as of the "formidable array" of facts on which that theory rests, and without which it cannot claim recognition. To show that I am not fastidious, and to illustrate my meaning, I call attention to the four cases mentioned by Dr. Otis, as having been treated lately at the New York Hospital, in which cases he alleges spasmodic stricture was "proven to exist," and which, he says, "would have been operated on by the perineal section, if the spasmodic character of the obstruction had not been determined by a previous dilating urethrotomy." The cases are thus given by Dr. Otis. "Within the previous month a patient was admitted to the wards of the New York Hospital, suffering from deep urethral stricture. The stricture was a very close one, and located in the membranous urethra. The operation of perineal section was decided upon. Notices to that effect were issued. The patient, when the proper time arrived, was etherized, brought into the amphitheatre of the New York Hospital, and the perineal section was about to be performed. The operator, a distinguished surgeon and colleague of Prof. Sands, had become familiar with my procedure in such cases, and he proposed, after ætherization, in order to test the matter of diagnosis more fully, to remove, first, several anterior contractions which were found to be present. This was accordingly

1. Brodie, Lectures on Certain Nervous Affections, London, 1837, p. 38.

¹ Étude sur les Rétrécissements Pénien de l'Urèthre: Folet: *Archives Générales de Médecin*: 1867, vol. 1, p. 424.

done, with my dilating urethrotome, clearing the penile urethra from stricture, stopping short of the deep stricture at $5\frac{1}{2}$ inches. A large sound was then entered, and *slipped by its own weight into the bladder*. A second case, in the service of the same surgeon, of exactly similar character, and two others of exactly the same kind, occurred in the service of another of Prof. Sands' colleagues in the same hospital, within the following two months."

I beg leave to compare Dr. Otis's account of the first case with the following one, condensed from the Hospital Case Book, (Vol. 11, 1878, p. 155,) which is open to public inspection. Bernard O'C., æt 35, was admitted, July 31, 1878. Patient had gonorrhœa nine years ago, the discharge becoming gleety, and lasting for six years. In the fifth year of the disease, he had a perineal abscess, which healed after remaining open for ten weeks. Another abscess formed at the same site, about four weeks before admission, leaving a fistula which had not yet closed. When admitted, he passed stream of urine about size of knitting-needle; examination of urethra detected obstruction about 5 inches behind meatus, admitting only a filiform bougie. *At the same point a steel sound, No. 25 F., entered what appeared to be a false passage.* High fever, with thrombosis of the left femoral vein, followed this examination, and no further mechanical treatment was undertaken until Sept. 26th, when the deep stricture was found impassable to filiform bougies. The perineal fistula admitted a probe, which passed about an inch upward and backward toward the bladder. Sep. 28. Operation: Patient etherized; flexible bougie, No. 5 F., entered bladder with difficulty, encountering resistance in the perineum; meatus, which admitted No. 23 F., incised, and with No. 22 F. strictures diagnosed at $2\frac{1}{2}$ and $4\frac{1}{2}$ inches from meatus. These were cut with the dilating urethrotome to No. 37, after which sound No. 35 F. passed without difficulty into bladder. Subsequently, steel sounds—gradually diminishing in size to No. 31—were passed every few days, until patient left the hospital, Oct. 20th, at which time the perineal fistula still existed.

The discrepancy between Dr. Otis's report and the one I have given must at once strike every reader. According to the official record, there is every reason to believe that the patient had organic trouble in the perineal portion of the urethra, as evidenced by the signs of a false passage at the point of obstruction, and by the existence of a fistula, which, although it was not proved to have any communication with the urethra, was quite likely the remnant of a urinary abscess. A false passage, if such existed, would be apt sometimes to catch the point of a sound, which at other times might take the course of the urethra, and enter the bladder. At all events, the complications in this case—no mention of which is made by Dr. Otis—render it utterly worthless as a proof of the existence of spasmodic stricture.

The second case is not described, but is stated by Dr. Otis to have been of "exactly similar character" with the first one. Let us examine it in the light of the following facts obtained from the Hospital Case Book, vol. 11, p. 153.

"James Hughes, admitted Aug. 16, '78, had gonorrhœa four years ago, and for the past two years has had the usual symptoms of organic stricture. Has been treated by dilatation up to No. 9 F. On examination, a close stricture was detected at the bulbo-membranous junction, grasping, but not allowing, the passage of a filiform bougie. Afterward, small instruments entered the bladder, and the stricture gradually yielded, until, at the end of six weeks, it admitted the passage of a steel sound, No. 15 F. At this time, ether was administered, the meatus incised, and three strictures, admitting a bulbous sound, No. 18 F., and situated at 2, $2\frac{1}{2}$ and $3\frac{3}{4}$ inches respectively behind the meatus, were incised by the dilating urethrotome screwed up to 34. An attempt was then made to pass sound No. 31 into the bladder, but the point of the instrument was arrested by the deep stricture, through which nothing larger than No. 23 could be inserted. The record then reads, "*Determined not to cut the stricture which was far back, but to accomplish the future cure by dilatation.*" This was done, sounds of gradually increasing dimensions being introduced until Dec. 20th, when the patient left the hospital, the stricture at that time admitting sound No. 30, which caused some pain.

The only exact resemblance which I am able to trace between this case and the preceding one, is in their complete failure to verify Dr. Otis's assertion that spasmodic stricture "was proven to exist."

I have been unable to find, "within the following two months," the "two others of exactly the same kind," but I presume that I have found, in the records of April and May, 1878,¹ the cases to which allusion is made. These cases are so carelessly written, however, and the facts and figures are so jumbled, that I defy anybody to draw from them any definite conclusion. But, taking the first two cases, I would inquire what reliance can be placed on Dr. Otis's version of them. And if, to this set of cases, can be applied the motto "*Ex uno disce omnes*," his "formidable array" of facts, will be formidable only to those who may be called upon to endure the heroic operations which they are held to justify.

7. I am charged with being vague in expressing my disapprobation of the operative procedures advocated by Dr. Otis, and am challenged to "attempt the somewhat difficult task of stating the character and amount of damage done." I will therefore endeavor to be more definite. I have frequently seen the operation of slitting the meatus carried to such an extent that the patient afterwards was unable to project the stream of urine in the natural manner; and I know of a case in which an eminent surgeon was obliged to perform a plastic operation to restore a meatus which had been destroyed. I have seen in consultation persons who have suffered from troublesome hemorrhage—varying in duration from a few days to a month—in consequence of having been cut with the dilating urethrotome, an excellent instrument of its kind, but the use of which has been carried to a dangerous excess. Finally, I have heard of a number of cases in which death has resulted from the employment of the dilating urethrotome. It is hard to obtain access to these fatal cases,

¹ Hospital Case Book, Vol. 1, pp. 418 and 432.

which are not usually reported, and which are generally considered as a kind of private property. I can state with authority, however, that three fatal cases of operation with the dilating urethrotome have lately happened in our city hospitals, two of which occurred last week in one hospital. In two of the cases mentioned, death took place from pyæmia within a week of the operation. In the third case, death occurred from uræmia on the sixteenth day after the operation, which was performed for the division of an anterior stricture so slight as to be detectable only with a bulbous sound No. 24 F. At the autopsy, three deep incisions were found, involving the anterior three and a half inches of the floor of the urethra, the mucous membrane of which, in this situation, was not thickened, and showed no appearance of disease to the naked eye. A tight organic stricture, undivided, was noticeable at the bulbo-membranous junction. This, during life, had been treated by dilatation.

I think I have said enough to show that the theory of spasmodic stricture, as taught by Dr. Otis, is unsupported by trustworthy evidence, and has led to serious errors in practice. Believing the doctrine to be false, and the practice dangerous, I should feel that I was recreant to my trust as a public teacher, if I failed to oppose the one, or to denounce the other.

HOSPITAL RECORDS.

THE ORTHOPEDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES, PHILADELPHIA.

Service of S. WEIR MITCHELL, M.D.

[Prepared for THE HOSPITAL GAZETTE.]

LEAD PALSY.

F. G., æt. 41 years. Painter by occupation. Worked at coach painting, putting on the first rough coat. Applied for treatment on July 12, 1872.

Patient stated that he had always been in good health until his present trouble began.

He had had previously two attacks of colic, the first one very severe, of three weeks duration, in 1862; the second, in 1869, lasted for two weeks.

About three years before he came under observation paralysis of the extensors of both hands set in, during the Summer. The loss of power came on gradually, and no pain was experienced. He was painting in white and red lead at that time.

There was an extensive bronzing over the face from the hair down the chin.

A blue line was noticeable on both upper and lower gums, not so marked at the base of the back teeth as the front. He had lost considerable hair.

The paralysis continued to get worse, although up to the time of his presenting himself at the clinic, he remained at work.

There was no weakness of the legs nor impairment of sight or hearing.

His appetite was poor and his bowels constipated, and there was some pain over the region of the kidneys; his general muscular development was good; the muscles of the extensor groups had wasted

somewhat, especially near the wrist; the right biceps was the stronger; there was no palsy of the supinator radii longus of either arm, which muscles stood out noticeably.

Right Arm.—Shoulder muscles good; arm, 3 in. above elbow, $10\frac{1}{4}$ in. circumference; arm, 2 in. below elbow, $10\frac{1}{4}$ in. circumference, the arm pendant; the elbow flexor mass was apparently well developed, and the extensors not remarkably atrophied, except near the wrist; had all the movements of the arm above the elbow, and the biceps acted well; the supinator not used in flexion of forearm; he could pronate and supinate arm perfectly; could not lift wrist at all, nor any of the fingers, nor the thumb; could extend the last two phalanges. In extreme extension the resistance of the flexors was sufficient to prevent the slight extension of the last phalanges. When the hand was flexed, in which it was not usually drawn by the unresisted flexors, it then had greatest power of extension. There was not the least movement of the thumb.

There was great atrophy of the thenar eminence, none of the interossei muscles, except the first, nor of the hypothenar eminence. Great atrophy of the first interosseous.

Could abduct the little finger; but slight power to separate the fingers; least power to abduct the forefinger.

There was nothing remarkable in the appearance of the nails; according to the statements of the patient, they grew as fast as usual.

Left Arm.—Had all the movements of the shoulder; flexes forearm chiefly by the assistance of the supinator, which stood out broad and rigid in flexion; the biceps was almost inactive, and seemed a flabby mass, somewhat atrophied.

Arm, 3 ins. above elbow, measured $9\frac{1}{2}$ ins.; arm, 2 ins. below elbow, measured $9\frac{3}{4}$ ins.

Pronation and supination were performed with some difficulty.

There was no atrophy of thenar or hypothenar eminences, nor of interossei muscles.

Could flex the fingers and extend second and third joints of the fingers, but not the first. In regard to extension, whether hand flexed or not, the same rule applied as in the case of the other arm.

All attempts at muscular movement caused tremors.

Sensation was unaltered in either arm, as shown by compasses.

Right hand moved dynamometer to 40; left hand moved dynamometer to 45.

Thirty Callaud cells moved right biceps readily; twenty Callaud cells moved right biceps slightly.

The flexors also responded well, while the extensors of the thumb contracted to thirty cells.

Electro-contraction in extensors of both arms was lost to both galvanic and induced currents.

The heart sounds were normal.

The nails were stained with nitric acid, and he was ordered to take internally 10 grains of iodide of potassium, increased to 20 grs. thrice daily, and to have the chemical current applied daily.

On July 26th he reported that he had had an attack of colic since the previous visit, which was set down as being probably cholera morbus. He was then admitted into the hospital and took I. K. until

September 12th, when it was discontinued on account of iodide acne. At that time the extensors of the right wrist responded to galvanism, and all the muscles were improving, the right interossei contracting feebly to 40 cells, while 50 cells moved all. Galvanism was reflected through from the back of the forearm to the flexors.

The left biceps contracted freely with 50 cells, as did all the muscles of the arm. The abductor minimi digiti could be moved by 50 cells, and the abductor indicis responded least well. There was absolutely no response of the extensors.

The nails had grown rapidly, the index of the left hand $\frac{3}{8}$ of an inch, that of the right within $\frac{1}{10}$ as much, while the other nails grew about the same, viz: $\frac{5}{10}$ in. There was no interruption in growth.

He was ordered to resume potass. iodid. in doses of gr. v. t. i. d., increased in a week to gr. x. t. i. d. On September 25 he was taking gr. x. four times daily.

On December 11th, the hospital case-book shows that he had improved considerably. The arm had become larger, and he had more power of movement. The blue line on the gums was fading. He had an apparatus for the arms, to prevent wrist drop. This was worn at night and during part of the day. He was then ordered sulphate of strychnia hypodermically three times a week, commencing by injecting gr. $\frac{3}{10}$ into the arm. He was at this time able to flex and extend the left arm—which continued the worse—strongly; but could not lift either wrist.

By December 19th he was using strychn. sulph. gr. $\frac{1}{8}$ hypodermically.

February 28th, the improvement kept on. Could extend right wrist slightly, and extend right fingers somewhat. Extends left fingers well. No power in interossei muscles.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JOHN A. WYETH, M.D.

EXTENSIVE NECROSIS OF THE SKULL DUE TO A BURN UNDER PECULIAR CIRCUMSTANCES—M. BROCA.

The patient seemingly in good health, presented this peculiarity, that upon falling asleep at night it was impossible to awaken him by any means, until the morning, when he would get out of bed, without any indisposition, and attend to his duties as a shepherd. One evening he was left alone sitting in front of the fire. Some time later he was found upon the hearth, asleep or unconscious. A large bonnet he had worn was burned from around his head, and the scalp was scorched for a considerable extent. He continued to sleep and was carried to bed. He awoke in the morning following and went about his work, and did not complain of any pain for several days. After some weeks, however, the skin of the scalp separated, exposing the underlying bone, which was black and dead. In a few days a sequestrum, including the external table and part of the diploe of both parietal bones, a portion of the frontal and occipital bones, came away. One year after the accident this patient was seen and the de-

nuded surface was covered with granulation tissue. In one limited spot over the right parietal pulsations could be seen, synchronous with the cardiac impulse. One year later still these pulsations could no longer be observed, showing that the new lamina of bone had been formed over the dura mater. During all this time he did his daily duty, attending to his flocks, and is now able to carry loads of brush upon his head, protected by his bonnet, and "congratulates himself that the scalp is no longer sensitive and the thorns and twigs cannot now hurt him."—*Gaz. des Hop.*—No. 12, 1879, p. 93.

PENETRATING WOUND OF THE KNEE-JOINT—

A. BAZIN.

Patient, a young man, received a penetrating knife-wound of the knee about two centimetres long. Escape of synovia in considerable quantity. In spite of the wound the man continued to labor for two hours after the injury when he was forced to desist on account of the pain. The wound was closed with two sutures. On the second day the knee was quite swollen, and a moderate compression gave vent to a quantity of synovia as large as the first discharge. Three days after the accident the sutures were removed and the lips of the wound supported by plaster. Recovery took place in twelve days, and although the leg was weak for some weeks it regained its usual strength in course of six months.—*Gaz. des. Hop.*, No. 19, p. 148, 1879.

LIGATURE OF THE CAROTID AND SUBCLAVIAN ARTERIES IN A CASE OF INNOMINATE ANEURISM—DEATH—M. KING.

Patient, male, æt. 37, syphilitic, four years ago noticed a pulsating tumor at the base of the neck, which diminished in volume on compressing the carotid and subclavian. Numbness of right forearm, cough, voice not altered. No dysphagia. Heart sounds normal. Ligature of carotid and subclavian in its third portion. Ligatures came away three days later, and in nine days after the operation the wounds were healed. Two months afterwards patient left the hospital, was drunk for three days, and the tumor again enlarged. Re-entered hospital, and in opening an abscess formed at the cicatrix, hemorrhage ensued which caused death in eleven days. *Autopsy.* Aneurism of the innominate and transverse portion of arch of aorta which had corroded the 5th and 6th cervical vertebræ. The calibre of the left subclavian was much diminished by atheromatous degeneration.—*Ibid.* No. 25, 1879, p. 196.

THE ADMINISTRATION OF CHLOROFORM IN OPERATIONS ABOUT THE MOUTH—MILLS.

After the patient is anesthetized by the ordinary inhalation from a folded handkerchief, the inhalation is continued through a tube inserted into the nostril or into the mouth, as may be deemed best for each operation. Chloroform is preferred to ether, on account of being less irritating and less likely

[Note. All the cases of this double distal ligature of the right carotid and subclavian arteries are reported in the Transactions of the American Medical Association for 1878.—W.]

to produce coughing or vomiting. Millis has tried this method more than fifty times, thirteen times in urano-plasty.—*Centralblatt für Chirurgie*, March 1, 1879, p. 142.

REMARKABLE SYMPTOMS FOLLOWING GUNSHOT WOUNDS OF THE NECK—FORKOWSKI—(WARSAW.)

Nov. 22, 1877, patient, a soldier, in good health, was wounded at the Balkan. Instant loss of consciousness, which, upon returning, patient found he was paralyzed in all the extremities, less, however, on the right than on the left side. The wound was on the left.) Fever was high at first, but declined later, and after some weeks he could move the muscles of the right side, and five months later those of the left. At this time there was a fistulous opening the size of a large pea at the posterior margin of the left sterno-mastoideus, through which the probe passed upward and backward, until at a depth of 30 cm., it came in contact with roughened bone. Beyond this there was a sinus with hard, smooth walls. The discharge is sero-purulent and scanty. On account of the contiguity of the spinal canal the sounding was discontinued, inasmuch as the patient assured P. that the ball had been removed at the first dressing on the field. Left pupil contracted, conjunctiva congested, skin on left side of head, face and neck cyanotic; yawning and opening the mouth painful; left upper extremity atrophied, cold, and flexed at the elbow; right extremities little affected; marked dyspnoea on assuming upright posture. In the course of a few weeks, after several pieces of bone and a piece of lead had come away, and the patient's condition was not improved, on July 14, (about 9 months after the injury,) P. removed by operation a piece of projectile 3 cm. long by 1 thick and weighing 30 grammes, a piece of cloth and some necrosed bone. Immediately after the operation, marked improvement, so that patient, who usually could not take more than 2 or 3 steps, walked from the operating room, unassisted, down a flight of stairs to his bed. Several hours later, rigors ensued, and the edges of the wound became hot and reddened. The temperature went up to 41.6° C (about 107° F.) the heat being felt by patient only on the left side, and the temperature was slightly higher on this side than in the right axilla. Just before death the thermometer registered 43° C.

Autopsy.—Pia mater and upper surface of cerebrum intensely congested. The wound involved the 6 and 7 cervical. In the bottom of the wound the spinal dura mater could be seen covered with granulations; pia thickened and adherent to dura. The wound was filled with pus and the synovial inter-articular surfaces were in part destroyed by suppuration. The cord was degenerated on the left side, a distance of 1 cm.—*Ibid*, p. 143.

LIGATURE OF THE COMMON CAROTID—DENECÉ

Patient had otitis, an abscess formed, and opening this a slight and readily arrested arterial hemorrhage followed; 20 days later (Oct. 10, 1876) there was a sudden and severe hemorrhage. D. could not tie the bleeding vessel in the wound and applied compress of lint, soaked in Monsel's Solution; 2 days later another hemorrhage. Oct. 13, ligature of

common carotid; ligature tightened slowly; compress 3 days later; ligature came away Nov. 3; recovered.—*Ibid*, p. 144.

CADELL—UMBILICAL URINARY FISTULA.

Patient girl, æt. 8. Had suffered from bladder trouble since infancy. Urine could only be passed in small quantity and this after intense effort. During last eight months it had contained blood—three months previously, after having remarked considerable distension of the lower portion of the abdomen for several days the urine was discharged at the umbilicus. A sound passed through this fistulous opening into the bladder. Dilatation of the urethra caused the urine to pass out through the normal channel, but death occurred from exhaustion within three months. *Autopsy*—Walls of bladder enormously thickened, mucous membrane pigmented, cavity contracted to such an extent that it would contain only 3 drachms. The urachus was permeable and admitted a No. 5 catheter. Right kidney twice as large as normal and infiltrated with pus. Kidney substance not recognizable. Left kidney partially destroyed. [Cases of urinary umbilical fistulæ through the urachus when not congenital are extremely rare. C. gives cases reported by Savory, Bryant, Paget, and T. Smith. *Ibid* p. 46.

ECZEMA OF THE TONGUE AND BUCCAL CAVITY.

M. Hardy, at la Charité, presented a patient, male, æt. 50; 10 years previously he had had an eruption on the scalp, at the same time experiencing a disagreeable sensation of warmth in the mouth, and on the tongue, the mucous surfaces here becoming whitish. The patient could not then speak or masticate without considerable pain. At the clinic the tongue was seen to be covered with whitish patches, some of them as much as an inch in diameter, composed of thickened epithelium—around these there were a multitude of little white points, which were evidently epithelial thickening of the papillæ of the tongue. Here and there were small superficial ulcerated points, without any neighboring induration. On both sides the inner surface of the cheeks presented the same patches composed also of hardened epithelial laminae. There was no salivation. The sensation of warmth existed as it had since the commencement of the disease. Taste is somewhat impaired.

Upon the arm and back were numerous red, dry, squamous patches. M. Hardy considered a buccal eczema analogous to that so often seen in persons addicted to excessive smoking, although this patient did not smoke at all. The disease could not be confounded with ichthyosis, stomatitis, general or syphilitic psoriasis, or epithelioma, since each of these, though often seen here, presented other and peculiar characters. Prognosis favorable. Treatment: Touch the ulcerating points with solution: glycerine 30 grammes; carbolic acid 10 to 30 grammes. Emollient mouth wash. Internal remedies: sodii arseniat 10 centigrammes to 20 grammes of sodii bicarb. In large doses for a considerable period. Refrain from eating anything salty or acid.—*Gaz. des Hop.*, No. 7, 1879, p. 49.

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EDITORIAL.

COUNTER PRESCRIBING—PHARMACO- MEDICAL HYBRIDS.

Whatever tends to the better protection of the public health, it is the extra professional duty of the physician to encourage. This includes as a counterpart the other, that whatever works detrimentally to the public health shall be promptly and openly denounced by him, for better protection can be secured only by exposing and destroying those agencies by which health is impaired.

The efforts put forth in the line of scientific inquiry for the revealing of anatomical minutiae, the widening of the pathological horizon or the increasing our of therapeutic treasures are well intended, and eminently deserving of the public encomium, whatever may be the success attending the effort, since they were made for the public welfare. These efforts show a dignified appreciation of the mission, to which our profession has devoted itself. Therefore this branch of his public duty is very inviting to the physician. Continuously with effort in it there comes applause; for every advance, there are flowers; for the successful finale, wreaths of victory and undying fame.

The other branch of his duty in the interest of the public is much less inviting; for every step in progress, scowls come, mixed with scant praise, and only after a hard fought battle, terminating in his undoubted success, does the physician receive his first reward. His opponents were active, while his friends were modest and guarded in their words of encouragement, lest they would call down some of the aroused indignation upon themselves. To accomplish the first work requires perseverance, application and devotion; to succeed in the other, demands all these, and a bringing of the vertebral column into close appromixation with a plumb line.

The work embraced in the latter task, the over-

coming of the agencies that tend to the impairment of the public health, must be more promptly undertaken, and more energetically prosecuted, or the glorious achievements in the science of medicine by the master minds will be rendered worse than useless. The work of the most skilful physician, whose time and talents have been sorely taxed in behalf of his patient, eventuating in his recovery, may be entirely annulled by a pompous, medically unprepared apothecary or his clerk stepping in with a suggestion, as he calls it, for a tonic, an anodyne, or soporific; suggestion he calls it but it is a verbal prescription in reality. Advice thus generously offered is seldom refused, being thought to arise from an unselfish interest, therefore the suggested medicine is purchased and used as directed—a general result of which is the flood-gates of disease are again opened, and in a short time the former convalescent no longer requires medical care, nor is he within the grasp of ignorant officiousness, or his escape is a marvel, and is accomplished only after greater labor, and after a more protracted illness. Such druggists and their clerks are the chief scab upon the body of the medical profession, most dangerous, because to a degree, they are recognized by some in the profession. These druggists furnish our text. What foundation have these practicing druggists, these counter prescribers, for their prescribing performances? Education for the task; they have none, save the little that comes with their pharmacy, spotted over with patches of information, small-pox like, gathered by cross-examinations of servants and children, who act as messengers in having prescriptions filled. This is their medical curriculum *in toto*, and as it is necessarily sadly defective, their impudence supplies what is needed to enable them to appear to be equal to the requirements of the medical profession; as usual, cheek exists in an inverse ratio to intelligence. Thus equipped, they realize that poetic image of Pope,

"A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring
There shallow draughts intoxicate the brain."

This statement of their fitness for the work is not in the least overdrawn; words are but poor tools in picture painting when the life of a human being at risk is the subject.

Following them in their career, we find, that emboldened by the failure of their few earlier efforts—yes, by the failure of their first efforts—to produce disaster and death, they solicit opportunities, openly with some, covertly and adroitly with more intelligent customers, to supplant physicians. Sometimes the assumption of surprise at the prescription, accomplishes the purpose; at others, a sneer—always there is a mask of superiority in their looks, acts and words, intended to delude.

Favored by chance, protecting the afflicted while under their ministrations, they flourish, and the establishment of each of such, becomes the popular drug store for its vicinity. The poor, by the false glitter as of generosity; the bargain hunters, in the pursuit of their life time occupation; the thoughtless, including the former two, and a herd of others, following the stream, are gathered at the counter for—Heaven spare the word, for its misapplication—advice, advice gratis, and medicine for friends or relatives in affliction. Real sorrow bows before pompous ignorance, and expects aid were life interests are at stake. How sad the spectacle! How shameful that law tolerates such infamous deception! How strange that a profession so renowned for its wisdom as the medical should not have developed some among its numbers, whose indignation at being compelled to share the odium of this murderous buffoonery, would have compelled them to drive these creatures into their holes.

But the career has not reached its end yet. The old story of the coal passer temporarily substituting the engineer in charge of the engine—the collision, the wreck, death and destruction—or the familiar narrative of the laborer in the mine replacing the superintendent for a few hours—the caving in, the entombment, suffocation and slow-coming, but welcome death—must be reproduced in outline, the details only varying in the march to death; then comes a halt; the charm of success is broken, and the poor miserable specimen of arrogance is lost.

Such ignorant prescribing, resulting in death, may fall short of murder with premeditation, within the letter of law. But wherein does it fail? The druggist did not select this person as his victim; the victim came to him, selected him. The druggist really hoped that his ignorance might not cause death. His humanity, in fact, made him fear that his avarice and assumption might work harm to his fellow creatures. This plea saves him from the baser charge. He suspended the life of another with a raveling of hope. He knowingly did all that was requisite to take the life of his victim, for he knew that drugs are death-producing instruments in unskilful hands,—his work did secure the death.

But it is not murder, as he hoped that death would not come from his efforts,—all he sought was the sale of his goods—the few pennies—those pennies were the price of blood. His hope, slender as it is, is the only dividing line that saves him from the ignominy of a murderer's fate by law. This partition is too thin a screen, so near the gallows, to shelter anyone who might wish to appear to be of our profession, or who, unfitted, assumes any of its duties.

This evil of counter-prescribing is growing, and is even asserting its demand for recognition in some countries, therefore must be encountered immediately and fearlessly. The security of the public and the honor of the profession are involved in the issue, and prompt action alone can secure both. To the medical profession, whose fair fame has been tarnished by the performance, the people look for the exposure of these horrid practices in their true color, and determined action, that will terminate this race of hope-saved murderers. When the work of extermination is fairly begun, the bravest and noblest allies will be the pharmacists themselves, who appreciate the magnitude of their proper calling, are cognizant of its imperfections, and are devoted to its advancement. Pure blood always has a thorough contempt for speckled hybrids. There are reasons of policy that operate to prevent pharmacists from inaugurating the contest, so long as the medical profession quietly countenance the encroachment upon their domain. It would be unwise for us to detail these reasons, for some would fail to lend credit to the profession. Be assured however that honest pharmacy will actively co-operate in the work of destruction. The people, themselves, cannot be expected to lead, since other pursuits are demanding their attention, and only fatal results within the doors of each family brings the knowledge of the terrible curse before them. The medical profession is the guardian of the public health, and they must sound the alarm; so loud, that legislators will have it ringing in their ears, that mothers will take their babes in closer embrace, trembling in grateful remembrance of their escape thus far, that a general outcry against these avaricious, ignorant, impudent hybrids, with their hopes, shall be raised that will enforce their entire extinction.

SELECTIONS FROM JOURNALS.

A DUPLEX UTERUS WITH DOUBLE CONCEPTION.

Dr. SOTSCHAWA, of Moscow, relates (*St. Petersburg Med. Woch.*, Jan. 25) the case of a woman, aged twenty-six, who applied to him on account of hemorrhage occurring during her third pregnancy. On examination it was found that there were two distinct vaginæ, each leading to a uterus. The finger passed up readily through the first of these so as to be able to feel the presenting ovum, the uterus seeming to correspond to about the second month of pregnancy. The vagina on the other (the right) side was more narrow, but allowed the cervix of what seemed a third-month uterus to be felt. Hemorrhage was taking place from both uteri, and, in consequence of this being considerable, an embryo of a month old was removed by the finger from the left

was extracted from the right uterus. The author observes that the case is not only remarkable for its rarity (only thirty similar cases being on record), but also as testifying to the probability of superfœtation.—*Med. Times and Gazette*, Feb. 22, 1879.

TREATMENT OF TUBAL PREGNANCY.

Dr. VEIT (*Deutsche Zeitschrift für prakt. Med.*, No. 49, 1878) says that about one-fifth of the cases of hæmatocele are due to rupture during tubal pregnancy; and that the latter is more frequent and capable of a more favorable prognosis than is generally supposed. In the rare cases in which an early diagnosis of tubal pregnancy can be made, expectant treatment is indicated. When rupture occurs, an attempt must first be made, to arrest the hemorrhage by external means; and, as a last resource, laparotomy must be performed, although it does not afford a very good chance. The method of arresting the hemorrhage will vary in different cases; sometimes it will consist in the application of sutures, sometimes in removal of the sac, etc. Dr. Veit performed laparotomy on a moribund patient to arrest the hemorrhage produced by rupture in tubal pregnancy. The Fallopian tube was tied, the sac sewn to the lower angle of the wound, and plugged with salicylized cotton-wool. After two days, plastic peritonitis set in, of which the patient died sixty-four hours after the operation.—*British Med. Journal*, Feb. 15, 1879.

LABOUR WITH CLEFT PELVIS.

Dr. A. GUSSEROW (*Berliner Klin. Wochenschrift*, Jan. 14, 1879) had the following case under his care 17th November, 1878, in the Charity Hospital. A girl, aged 19, came to the hospital in labour. She was the subject of ectopia vesicæ. The following is a translation of the account of the condition, presented. "At the lower third of the anterior abdominal wall was the posterior wall of the bladder. It was red and covered with a moist mucous membrane 7 centimètres broad and 5 centimètres long. At the lower margin of this membrane were seen the two openings of the ureters from which urine dribbled continuously, and frequently spurted out a distance of a foot under the contractions of the abdominal walls, and during labour pain. The skin over the abdomen in the neighbourhood of this projecting posterior wall of the bladder was cicatricial in appearance, and of a brownish hue. No umbilicus was to be seen. Underneath, the wall of the bladder was continued as a fold of skin about 2 centimètres broad, of a bright red colour, but not showing the characters of mucous membrane, although part of it was regarded as being the posterior wall of the urethra. Under this was the opening of the vagina, 3 centimètres long and 5 centimètres broad, which was irregular in shape, owing to the absence of the sphincter vaginæ. This opening was surrounded by two very rudimentary, irregularly shaped projections of skin, which represented the labia majora and minora. At the upper margin of the opening were two well developed folds of skin, which were the divided corpora cavernosa of the clitoris. Under the skin could be felt and seen the

centimètres apart. The inter-space was partly filled in by the posterior urethral wall, and partly by skin spreading from the integument covering the pubic rami. The outer margins of this skin were sparsely clothed with pubic hair. From the lower margin of the vaginal opening was stretched a tense perineum 4 centimètres in length, which, together with the anal aperture, appeared to be directed forwards and upwards: This unusual condition was further complicated by the protrusion, through the small and irregularly shaped vaginal opening, of the child's foot as far as the ankle, and a pulseless loop of knotted umbilical cord, which had also prolapsed." The waters had burst two hours before her admission into the hospital. Although the uterine contractions were powerful, the labour did not progress, and Dr. Gusserow made two incisions from the sides of the vulvar opening towards the tuberosities of the ischia. This he did to enlarge the opening and to avoid the rupture, which appeared imminent, of the posterior bladder wall. The delivery of the child and placenta was then readily effected. Lying-in normal. Dr. Gusserow states that up to the present time only five cases of labour have been observed in similarly deformed pelvis. The first by Bonnet, 1722; the second by Ayers, 1859; the third by Litzmann; and the fourth and fifth by Gunzburg, who published them in the *Petersburger Medizinische Zeitschrift* 1872-73 *London Med. Record*, Feb. 15, 1879.

TUBERCLES IN THE CEREBELLUM.

The following observation is published in *Il Morgagni*. J. E., aged 11, presented himself as an out-patient in Professor Capozzi's clinic. He was pale; his mucous membranes were bloodless; and his face bore an expression of great suffering. He complained principally of a violent headache, which spread over the whole of the skull, but principally over the frontal and occipital regions. His nurse, who accompanied him, stated that this symptom was accompanied by amblyopia, strabismus, giddiness, and vomiting. Since he had begun to suffer from these headaches, he had had an uncertain gait very like a drunkard's, could not stand upright, never walked, but always ran, at the imminent risk of falling. On examining the patient, bronchial râles were heard on both sides of the thorax. This, together with the peculiar harshness of the breathing and the above mentioned troubles, led to the diagnosis of a tumor in the cerebellum. The patient died a few days after his admission into the hospital, and the diagnosis was subsequently confirmed at the necropsy. In the middle of the cerebellum, above the fourth ventricle, was found a tumor of the size of a nut, having the structure of a tubercle. Two tuberculous nuclei were situated in the lungs. The bronchial glands were swollen, and contained in their centre a yellow cheesy mass.—*Brit. Med. Jour.*

RECENT OBSERVATIONS ON SCARLATINA

Dr. Henoch, of Berlin, has had the opportunity, in his position as physician to the Charité Hospital, of observing carefully a great number of scarla-

the third volume of the *Charité Annalen* for 1878. He divides the different accidents which are apt to happen during the course of the disease into four classes, viz., anomalies of temperature; malignity of the disease; complications which may arise during it; and nervous symptoms.

As regards anomalies of temperature, the following observations have been made: 1. The temperature may rise slowly whilst the exanthem appears distinctly on the first day; 2. The temperature is very high the first day, but falls on the next, and remains normal during the whole of the illness; 3. The temperature is exceedingly low during the whole of the illness; 4. Both the high temperature and the rash last abnormally long: great care ought, however, to be taken here not to mistake the febrile heat which may originate from some hitherto latent complication for the fever of scarlatina. Such complications may be—e.g., otitis externa or media, protracted diphtheria of the pharynx, and inflammations of the submaxillary glands.

As regards the malignity of the disease, apparently dangerous symptoms are often met with. For instance, the temperature remains very high; the patient is somnolent and delirious. If, however, by antipyretic treatment, as tepid baths, quinine, salicylic acid, etc., we succeed in reducing them, we may be sure that the case is not malignant. But if our treatment fail to produce the desired effect on the above mentioned symptoms, the prognosis is sure to be very bad. This different issue in cases which seem at first to present the same range of symptoms, is explained by the action of the contagium matter of scarlatina on the centres of the vagus nerve. That the latter is affected is clearly shown in these cases by the symptoms of weakness of the heart, such as a quick soft pulse, cold hands and feet although the temperature of the body be high, and irregularity in the breaking out of the rash.

If the above mentioned debility of the heart take place after the rash has come out, and during the first week of the disease, the case is perhaps a little less dangerous; but then the disease is almost always accompanied by diphtheria of the pharynx and the nose. The temperature may either remain very high up to the moment of death, or fall considerably. If the patient have suffered from diarrhoea since the beginning of his illness, and no plausible reason can be given for it, the prognosis is very unfavorable. This Dr. Henoch ascribes to paralysis of the splanchnic nerve caused by the contagious matter. A few cases have been observed in the Charité where diphtheritic angina seemed to precede eruption, but Henoch thinks that here the primary disease was really diphtheria, but that the patient the caught scarlatina by infection, the first symptom of scarlet fever being *always* a simple angina, which develops into diphtheria only on the third or fourth day of the illness, stomatitis, diphtheria, or what is still worse, coryza, which sometimes is the cause of most dangerous forms of conjunctivitis. The diphtheritic affection often spreads over the larynx, but very seldom passes beyond the vocal cords. Dr. Henoch has never seen any cases of paralysis arising from diphtheria, in scarlet fever. The dyspnoea which sometimes appears is caused

parts of the pharynx. In three cases, angina Ludovici was caused by diphtheria of the pharynx. It is often dangerous to make incisions into the submaxillary glands when there is inflammation, as some branches of the external jugular vein, or the latter itself, may be affected and thereby cause very serious hemorrhages.

Inflammations of the respiratory organs occur very often, and are most dangerous. Dr. Henoch met with catarrh of the trachea and the bronchi, and with pneumonia and pleurisy on one or both sides.

In inflammations of the serous membranes, the synovial membranes of the joints are first affected; sometimes there are also swelling and stiffness. In some cases, these inflammations were followed by pleurisy and peritonitis, in another case by endocarditis, and in a third by endocarditis and chorea. Diseases of the heart also occur after scarlatina, even when the articulations have not been affected.

Nervous symptoms are also observed. In young children, the illness is sometimes preceded by convulsions. In two cases, the patients complained of pain in the tips of their fingers, although the joints were perfectly free. Paralysis of the facial nerve is often caused by swollen glands pressing on the mastoid process, or by caries of the petrous bone. Chorea was twice noticed, and once locomotor ataxy of the lower extremities. In complicated malignant cases, there is often found an eruption very similar to those which occur in measles, the so-called variegated scarlatina. A cyanotic hue of the skin is a very bad symptom, because it only occurs in cases of extreme debility of the heart. Gangrene of the skin, bed-sores, and necrosis of the cartilage of the nose, are often found; also subcutaneous abscesses in different parts of the body, especially in weak children. The author's treatment consists in tepid baths (he objects to cold ones), and in administering stimulants, such as alcohol, coffee, camphor, musk, etc.

Of late, several cases of scarlatina occurring immediately after some surgical operation have been observed, a few of which recently happened in France under the treatment of M. Trelat (see *British Medical Journal*, November 9th).

Looking at the above-mentioned facts, Dr. Henoch concludes that, if scarlatina occur in the course of some surgical affection, it has a very unfavourable influence on the wounds; and that in children scarlatina seems often to result from an operation; at least, a great many cases have come under observation in which this has happened. What may be the cause of this is not yet quite clear. Paget supposes that the prostration which follows an operation makes the patient more sensitive to contagion. But this is only a hypothesis; and, besides, scarlatina has been observed in surgical patients where the possibility of infection was entirely out of the question.

Acute mania has also been known to occur in scarlet fever, perhaps from the same unknown causes from which mental disturbances have been observed to arise, either during or immediately after acute articular rheumatism of the joints, erysipelas, etc. A very interesting case of mania has been observed in France, and published in the

Union Médicale du Nord-Est, by M. Flamain. The patient, a girl aged 22, was in the fourth day of a severe attack of scarlatina, when she suddenly showed very extraordinary mental disturbances. Whenever she was quiet, her face wore a certain expression of pain, her voice was weak, plaintive, and her intellect perfectly clear. Suddenly, without any intermediate stage, her face became joyous, her speech loud and animated; she began to sing, to laugh, or to say many things. A few moments later, the delirium was gone as suddenly as it had come on; but the patient remembered what had happened, and tried to apologize for it, by saying that she could not help it. During the two following days this delirious state continued, but it manifested itself in different ways and at intervals. Sometimes the patient was exceedingly merry; at other times she was in an ecstatic state; then, again, great excitement prevailed; which was followed by utter prostration. On the next day, the delirium, which hitherto has only shown itself in the wanderings of her mind, suddenly changed and became violent; the patient screamed, gesticulated, tried to rise from her bed; and it was all that two strong men could do to hold her back. Forty-five grains of chloral and six-tenths of a grain of morphine had no effect upon her. This violent stage lasted for eight or ten hours, and then gave way to a sort of epilepsy. Then another change occurred again; during two days the patient was quiet, her intellect seemed to regain its lucidity, she perspired abundantly, but had fits of spitting, like lunatics; she refused to drink; her bowels were constipated; she passed very little urine, which contained a great quantity of albumen. Towards the end of this last day, her pulse became quick, she was perfectly quiet, fell suddenly in a profound coma, and expired two hours later. As far as could be ascertained from her relatives, the girl's father had died from an affection of the nervous centres, but she, and the rest of her family, had always been healthy. Dr. Flamain observes that the cause of death in this case could not be scarlatina, the latter not being malignant and its course in every respect perfectly regular. Uræmia was entirely out of the question, as it manifests itself usually at a much later period of the disease, and consists of entirely different phenomena. The only plausible explanation, therefore, in this case is acute mania, occurring in a person with hereditary predisposition.—*British Medical Journal*, Jan. 4, 1879.

ON THE EFFECTS OF DIET, REST, EXERCISE, ETC., IN CHRONIC NEPHRITIS.

An able and interesting paper on this subject, by Drs. E. I. Sparks and J. Mitchell Bruce, was read at a late meeting of the Royal Medical and Chirurgical Society (*Med. Times and Gazette*, Jan. 25, 1879), which has a real value as a contribution of carefully observed and recorded facts on points of treatment regarding which we are in need of increased reliable information. The authors showed the relations of the amounts of urine, albumen, and urea to each other in the patient on ordinary mixed diet and whilst taking ordinary exercise; and then gave the results of experiments with absolute milk diet, non-nitrogenous diet, excess of eggs, and nitro-

genous diet with water, respectively, and also the effects of rest, of exercise, and of the administration of digitalis, upon the amount of albumen and of urea, and on the specific gravity and the total amount of the urine. The principal conclusions arrived at are—that the amount of the albumen was reduced by milk diet and by non-nitrogenous diet; that the effect of the milk diet was not merely due to the albumen being more than ordinarily diluted, for ordinary diet, with an equal amount of water, did not produce the same result; that the effect of non-nitrogenous diet was decided, was not immediately produced, and persisted some time after the re-ingestion of nitrogen; and that absolute rest markedly reduced the amount of albumen. The authors do not pretend to draw settled general conclusions from their experiments, to be applied universally in Bright's disease, but think that their observations indicate that certain factors beyond the disease-process had to be regarded in this case of albuminuria; these factors must be physiological facts which are still unknown, which evidently are related to the processes that occur between the digestive organs and the kidneys, and which being physiological, must be taken into account in every case of albuminuria; and that diet and rest are of the greatest importance in the treatment of albuminuria. Much has been written lately on intermittent albuminuria and the results obtained by the authors suggest that all cases of albuminuria not intermittent are probably remittent. They do not accept the explanation of the increase of albuminuria by exercise as always due to increased pressure; and their view on this point is supported by Dr. Quain's account of a case in which albumen was present largely in the urine after breakfast, and declined very greatly during the day. One of the most remarkable points about the paper is the fact that the great majority of the laborious and careful investigations were made by the patient himself, who is a medical man suffering from chronic phthisis, chronic heart disease, and chronic nephritis—the urea, albumen, specific gravity, and total amount of the urine being estimated five times daily for weeks. Such an investigation, in such circumstances, shows wonderful courage, determination, and love of scientific truth and research.—*Monthly Abstract*.

THE FORMATION OF EMULSIONS.

The mode by which fat and oily substances in general are introduced into the system is by the formation of an emulsion—that is to say, by the division of the oil into minute spheroids, which are prevented from reuniting by the fluid in which they float. Rancid oil, which contains free fatty acids, when shaken with dilute solution of the alkaline carbonates, forms an emulsion even more readily than neutral oil. Claude Bernard showed that the action of pancreatic juice on fats was to induce the formation of fatty acids, and a recent investigator, Gad, has demonstrated that an emulsion is formed if fats or oils containing free acids are merely brought into contact with alkaline solutions without any agitation. The production of such an emulsion is well exhibited cod liver oil is dropped into a quarter per cent solution of soda. When the conditions requisite for

emulsification are present the surface of the drop assumes a white, milky aspect, with lines streaming off in all directions, whilst the drop itself presents amoeboid movements. This seems to be due to a play of forces between the fatty acids and the alkaline fluid, for, when the former are neutralized, no further emulsification occurs. Quincke, who has just published an essay on the subject, considers that the process is due to the expansion or widening out of thin soapfilms from the surface of the oil. The formation of these films causes vortices in the interior of the oil and in the adjoining fluid, which lead to the breaking up of part of the oil and the formation of extremely minute drops. Very small quantities of soap—so small indeed as not to be recognizable under the microscope—are sufficient to cause the phenomena described. Fats which contain free fatty acids form solid soaps in a weak solution of soda, which dissolve in the fluid surrounding the oil-drops, and spread over their surface. This film, or a succession of them, renders the surface of the oil-drop immovable, and prevents the drops from coalescing, thus maintaining the condition of emulsion. No emulsion takes place in the case of castor oil, apparently because the soaps originating from the contact of the drops with the soda solution are too readily soluble. Bile facilitates the solution of the solid soaps, and may, under some circumstances aid, but under others may retard, the formation of an emulsion and absorption of oily substances.—*Lancet*.

NEWS ITEMS AND NOTES.

Blood-Letting.—Dr. T. M. Greenhow sends the following note to the *Brit. Med. Jour.*:

SIR—Will you permit me to put a question, to which some of your correspondents may oblige me with an answer? Having retired from the practice of my profession nearly twenty years ago, this question has often presented itself to my mind: Has blood-letting been entirely discarded from practice in the therapeutic treatment of disease?

In my early days, some sixty or seventy years ago, it was largely and frequently employed, especially in acute inflammatory diseases, and, I still believe, with very happy results. A patient suffering from acute pneumonia obtained great and immediate relief from the abstraction of sixteen, eighteen, or twenty ounces of blood, and often the bleeding was repeated on any aggravation of symptoms. Is this practice now still pursued, or is reliance in such cases placed on other remedies?

I am sufficiently conscious that, at the time referred to, bleeding was too frequently, and perhaps too largely, had recourse to; but is it not possible that an opposite error may now obtain? At present, the pendulum may vibrate too far in the opposite direction. Does this arise from fashion or prejudice, or from the great advance of the knowledge of diseases, of physiology, pathology, or therapeutics; or, as has been supposed, from a change in the type or character of the human system in England since the first eruption of cholera in 1831.

Hypodermic Injection of Morphia.—Dr. H. H. Kane, of Cincinnati, who has for some time been

collecting statistics on the subject of the hypodermic injection of morphia, would be greatly obliged to any physicians, for answers to the following questions:

1. What quantity of the drug do you generally use?
2. What is the largest amount you have injected at one time?
3. Do you use it alone or with atropia?
4. Have you had any inflammation or abscess at the point of injection?
5. Have you had any deaths from the use of the drug in this form?
6. Have you known of any cases of the opium habit produced by the use of this instrument?

Any communications on this subject will be considered purely confidential, no names being used without the writer's full permission. Address letters to Dr. H. H. Kane, 263½ West Eighth street, Cincinnati, Ohio.

Opium-Smoking.—The *Chemist and Druggist* gives an interesting account of an experiment in opium-smoking, made by Dr. Miclucho Maclay upon himself during his stay in Hong Kong. The experiment was made at the Chinese Club, where every convenience for smoking opium is to be found. Dr. Clouth of Hong Kong took the necessary observations, and his notes may be summarised as follows. Herr Maclay was in normal health, and had fasted eighteen hours before commencing the experiment. He had never smoked tobacco. Twenty-seven pipes, equivalent to 107 grains of the opium used by the Chinese, were smoked in two hours and three-quarters, at tolerably regular intervals. The third removed the feeling of hunger caused by his long fast, and his pulse rose from 72 to 80. The fourth and fifth caused slight heaviness and desire for sleep, but there was no hesitation in giving correct answers, though he could not guide himself about the room. After the seventh pipe, the pulse fell to 70. The twelfth pipe was followed by singing in the ears, and after the thirteenth he laughed heartily, though without any cause that he can remember. Questions asked at this time were answered only after a pause, and not always correctly. He had for some time ceased to be conscious of his actions. After the twenty-fifth pipe, questions asked in a loud tone were not answered. After the last pipe had been smoked, he remarked, "I do not hear well." Forty minutes later, there was a slight return of consciousness, and he said, "I am quite bewildered. May I smoke some more? Is the man with the pipe gone already?" Fifteen minutes later (4.55 P.M.), he was able to go home, and then retired to bed. He awoke the next morning at 3 A.M., and made a hearty meal, after his fast of thirty-three hours. During the next day, he felt as if he had bees in a great hollow in his head, as well as a slight headache. The organs of locomotion were first affected, next came sight and hearing, but Herr Maclay is very positive that there were no dreams, hallucinations, or visions of any sort whatever.

The Medical Societies of Russia.—The oldest Medical Society in Russia is that of Warsaw, of which the date of foundation is said to be unknown. Next in order of age is the Medical Society of Wilna,

which was instituted the 26th of May, 1806. In 1856 the Society of Medical Practitioners of St. Petersburg was founded, and since that date numerous similar societies have been established in the empire. Of these two were founded in 1859, two in 1860, four in 1861, five in 1862, four in 1863, three in 1864, one in 1865, three in 1867, eight in 1868, four in 1872, three in 1873, four in 1874, five in 1875, three in 1876, and three in 1877. The total number of medical societies now existing in the empire is 70, of which 69 are devoted to the promotion of medical science, and one to certain benevolent purposes.

In addition to the Medical Societies there are eleven Pharmaceutical Societies, of which six are scientific and five benevolent. There is no mention of Veterinary Societies in the record before us.

The number of medical practitioners in the Russian Empire in 1877 is stated to have been 13,098, of whom 2027 were doctors in medicine. In the course of the same year 595 students completed their studies.

The number of pharmacies existing in 1877 was 1621, or one pharmacy for every 49,350 inhabitants. In these pharmacies were dispensed during the year 9,319,655 prescriptions, the gross cost amounting to 7,033,361 roubles, or at the rate of 34 copecks per prescription.

New Remedy for Dysentery.—In the *Indian Medical Gazette* for October 1st, 1878, there is an interesting account of a new remedy for dysentery, "which promises to rival ipecacuanha in its power over acute dysentery." The credit of bringing this remedy to notice belongs to Assistant-Surgeon Umrito Lall Deb, attached to the Howrah General Hospital. This gentleman reports, and his report is confirmed by Surgeon-Major R. Bird, M.D., Civil Surgeon of Howrah, that the root of the plant called in Bengalee *Rungun*, belonging to the genus *Ixora*, "is very efficacious in the treatment of acute dysentery." Dr. King, Superintendent of the Calcutta Botanical Garden, identified the plants used in the trials at Howrah as belonging to the species *I. Coccinea*, and *I. Bandhuca*. It is claimed for this remedy that it has the virtues of ipecacuanha without the nauseating properties of that valuable drug. At Howrah, the remedy was used in doses of from fifteen to thirty grains, three or four times a day, of the fresh root ground to a pulp on a "curry stone," with a piece of long pepper, administered suspended in water. Extensive trials are now being made in India of this new remedy. A tincture has also been prepared of the fresh root. —*Brit. Med. Jour.*

Uterine Mucous Membrane Immediately before Healthy Menstruation; Graafian Follicle apparently Ruptured Three or Four Days.—Dr. Galabin exhibited to the Obstetrical Society of London, the ovary of a healthy woman, aged 25, who died suddenly from a stab in the thigh dividing the femoral artery. He also showed microscopical sections of the mucous membrane of the uterus; in its deeper half, the glands were much dilated, so that the section had a cribriform appearance to the naked eye, and disruption easily took place at this level. The condition resembled, on a small scale, the expansion of

gland cavities which takes place in pregnancy, and is described as forming the surfaces of disruption for the puerperal decidua. The right ovary contained a follicle five-eighths of an inch in diameter, nearly filled by a clot of blood, which was partially decolorised; but there was no apparent commencement of cell-growth from the walls of the follicle to form a corpus luteum. As far as could be judged from the appearance of the clot, the follicle must have been ruptured three or four days.

Appreciative Patients.—The Dutch settlers in South Africa are exceedingly fond of physic, and although extremely penurious in all other ways, niggardly, in fact, to the last penny, they will not scruple at the slightest symptom of illness to send for a doctor. Should a surgeon once obtain repute, deservedly or otherwise, his fortune is certainly made.

New Demonstrator of Anatomy in Jefferson Medical College.—At a meeting of the Board of Trustees of the Jefferson Medical College, held on Thursday evening, April 3rd, in the hospital building, Dr. William S. Forbes was elected demonstrator of Anatomy. The other candidates were Dr. Henry C. Chapman, Dr. W. W. Keen and Dr. John B. Roberts.

More Chinese Materia Medica.—Among the Pharmaceutical products exhibited at the Paris Exhibition in the Chinese section were the following: Bear's gall—a sovereign antidote; Bezoar stones—an infallible panacea; skins of the python—for paralysis and rheumatism; dried fowls' gizzards—as a substitute for pepsine; inner pellicle of eggs—for jaundice; human urinary calculi—for renal complaints; hippocampus (seahorse)—for women in confinement, the woman to hold one in her hand; powdered elephant's skin—rheumatic complaints; fossil bones—for chorea and fever; ashes of roasted grass-hoppers—for headache; tincture of scorpions—stimulant; decoction of small green serpents—for skin diseases; tiger's bones in jelly—a costly medicine, said to possess high tonic virtues; inside of a stag's horn—colds and bronchitis; buck's sinews—for rheumatism and sciatica; glue made from asses' skins—enjoys a great reputation as a remedy in lung diseases; the dried excrement of silkworms—for eye diseases; dried earthworms—for secret diseases; toad's mucus—this is prepared by keeping live toads in a vessel half-filled with flour; when the flour is sufficiently impregnated with the slimy excretions of the toads it is separated and dried—this remedy is used in convulsions.

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LECTURES.

THE SIGNS AND PHENOMENA OF DEATH.

Two Lectures Delivered in the Auxiliary Medical Course.

BY

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(Reported for THE HOSPITAL GAZETTE.)

LECTURE I.

The inalienable gift of life which has been bestowed by the Creator may neither be rashly laid aside according to the caprice of the individual himself, nor be violently taken from him by the brutal force, or subtle cunning of another. Accordingly, in all civilized countries, the unlawful taking of a human life has ever been regarded as a crime of the greatest magnitude and deepest guilt; so grave, indeed, as usually to demand, by the law, the forfeiture of the life of the offender.

When death occurs suddenly under suspicious circumstances, or even where the surroundings are not suspicious, but the individual dies suddenly, away from his home and family, and without medical attendance, the laws of civilized society demand that an investigation of the case should take place; and they provide a special officer—the *Coroner*, for the purpose of conducting it, with the aid of a jury, in all its necessary details.

Let me here insist on the most careful and systematic investigation on the part of the medical officer who is summoned to conduct the examination in such a case. To the skill and knowledge of the accomplished anatomist, there should be conjoined the discriminating carefulness of the trained observer. Never should he permit himself to be deterred from his purpose of making a thorough and exhaustive investigation as to the cause of the death, by the ignorant and stupid opposition he may be forced to encounter. His line of duty is so clear and distinct that he need not hesitate in its performance.

THE THREE GREAT CAUSES OF DEATH

The physician who is summoned to inspect a human corpse found under suspicious circumstances has a four-fold object to determine: (1) *the actual fact of the death*; (2) *the unknown cause of the death*; (3) *the time that has elapsed since the death*; and (4) *in the case of the body of a newborn child, to establish the fact of a live birth*. Let us direct our attention to the first of these points, how to distinguish between real and apparent death. Remember that in every case of sudden death—indeed, I might say of death under any form—the actual departure of life must occur in one of three methods: either by the heart (*syncope*), by the lungs (*apnœa*); or by the brain (*coma*). Whatever be the variety of the proximate cause of death, the immediate cause must be looked for, necessarily, in

one of these three great centres of life, whose functions are so intimately connected together, that the arrest of any one set must speedily lead to the suspension of both the others.

In death by *syncope*, the heart's action may be arrested either by a deficient supply of blood (*anœmia*), as when life is terminated by sudden hemorrhage, either natural or by violence; or by the defective quality of the blood, or through loss of heart power (*asthenia*), as by the action of certain poisons, or through a flabby condition of the organ itself, or from sudden nervous shock; or through inanition.

In death by *apnœa* (asphyxia) it is the action of the lungs that is first arrested; either through some impediment obstructing the entrance of air into these organs, as in suffocation, drowning, strangling, hanging, &c.; by paralysis of the respiratory muscles; by mechanical pressure on the thorax, or on the lungs directly, &c. In death by *apnœa*, the action of the heart continues for some little time after respiration ceases; hence life may sometimes be restored if artificial respiration be kept up until the cause of the suspended breathing be removed.

In death by *coma*, the functions of the brain are those first implicated. Here, the powers of the great nervous centre become suspended, either as the result of disease or of violence, producing insensibility or unconsciousness. Then follows the disturbance of the respiratory functions, as evidenced by the slow, irregular and stertorous breathing, afterwards becoming rapid, feeble and irregular, until at length the reflex power of the medulla oblongata ceases, when respiration fails altogether. The chest no longer expands; and the heart, deprived of its normal stimulant—arterial blood—soon ceases to contract, just as in death from *apnœa*. In apoplexy we have an example of a natural death by *coma*; and fracture of the skull and opium-poisoning afford us illustrations of violent death through the same mode.

The first question then to settle is, is the individual really dead, or is death only apparent? I need not stop to argue the importance of satisfactorily settling this question, there is in every community a natural and wide spread feeling of dread of *premature interments*. The mind recoils with horror at the very idea of being "buried alive." Hence, the desirableness of ascertaining some absolutely certain signs by which to discriminate between real and apparent death. In the year 1873 two prizes were founded in the Paris Academy of Science, for 20,000 francs and 5,000 francs respectively: the former "for the discovery of a simple and popular mode of recognizing the signs of real death, in a certain and indubitable manner, a method which may be put into practice by poor uneducated villagers." The second, "for the discovery of a scientific method of recognizing with certainty the signs of actual death." The great prize has not yet been awarded, and only a portion of the smaller one. *

In treating of these "signs of death," I can only give you a digest of those *proofs* of actual death, which are regarded as sufficient by the best authorities on the subject

THE VARIOUS SIGNS OF DEATH.

1. The first of these that I shall mention is *the absolute and complete cessation of the functions of circulation and respiration, as proved by auscultation*. If the suspension of these two functions, for sufficient length of time—say half an hour—can be satisfactorily determined, I think there can be no doubt whatever that life is extinct. Here, however, we must not overlook those cases of *apparent death*, or suspended animation, in which both the above mentioned functions appear to have ceased—as in asphyxia, trance, or catalepsy, and in certain forms of hysteria. In these cases, however, the real condition is not one of absolute stagnation or suspension of the action of the heart and lungs, but rather of a reduction of these functions to the lowest possible ebb, resembling the conditions termed *hibernation* of some of the lower animals; thus, according to J. W. Bouchut, the marimot or mountain rat, during its torpid state has only about eight beats of the heart per minute, and these very feeble, while during its full activity they mount up to eighty or ninety in the minute. The remarkable case of Col. Townshend, mentioned by Dr. Cheyne, is probably to be explained by referring it to a similar cause. This gentleman had the power of voluntarily suspending the action of his heart and lungs, and passing apparently into the condition of death for the space of half an hour. But as has been very properly remarked, the use of the stethoscope was not so well understood at that day, as it is at present, otherwise the auscultating sounds, although feeble, might doubtless have been detected by the practiced ear. Those marvellous cases that we read of as occurring among the jungles of India, where the individual is reported to have passed into a seeming state of death, and then to have been entombed for weeks or months, after which he again came to life, should, I think, be regarded as apocryphal; they bear about them too much the appearance of imposture or clever jugglery to satisfy us to abandon all our well-proven physiological facts. One point must not be forgotten in relation to persons in a trance or fainting fit: however long they may continue in this condition, the body never assumes the ashy paleness, the coldness, nor the rigidity of real death.

2. The second “sign” of death to be noticed is *the condition of the eyes*. This consists in, (1) an entire loss of sensibility to light; the pupil neither contracts nor dilates under this stimulus. To be sure, this same insensibility to light is witnessed in certain cerebral affections during life; therefore, it is not to be regarded as a positive sign. Moreover, the peculiar action of Atropia and Callabar bean—the one in dilating and the other in contracting the pupil—is entirely lost after real death has continued some hours; although it is stated on good authority to continue for a short period after dissolution; and probably for the same reason that general muscular irritability does not usually cease until some hours after death. (2) The cornea speedily loses its transparency, and the eyeball its normal tension; but both of these conditions may exist before death, as the effects of disease. In apparent death [trance] the cornea retains its translucency, the papilla of the retina is of a rose-red color, and the fundus of the

eye is furrowed by the arteries and veins of the retina. [3.] At the instant of death the choroid loses its red color, and becomes pale grayish, like tarnished lead. The papilla of the optic nerve becomes so pale as to be no longer recognizable by its color and the central artery of the retina disappears. The veins of the retina likewise become contracted and partially disappear, so that their course cannot be accurately defined and followed. [M. Bouchut, *La Tribune Médicale*, No. 47, 1868.]

3. The third “sign” of death is *the ashy pallor of the body*. As is well known, this characteristic paleness very speedily manifests itself after the cessation of life. It may be said to be universal, although it does not always immediately occur in persons of florid complexions. There is an exception also in jaundice; and the red inflammatory zones around ulcers, tattoo-marks, the spots of purpura and echymoses or bruises do not disappear after death.

4. The fourth “sign” of death is *loss of animal heat*. The animal body during life has the wonderful power of maintaining its own proper temperature—about 98° F.—quite independent of the surrounding medium. At the moment of dissolution this power ceases, and the temperature of the body is gradually reduced down to that of the surrounding medium. This is accomplished precisely as in the case of the cooling of any other material substance, partly by radiation, and partly by conduction and connection. The time usually required for the complete [external] cooling of the body is from the fifteen to twenty-four hours, but this varies considerably according to the condition of the body itself, according to the medium in which it is kept after death, and also according to the manner of the death. Thus, fat bodies retain heat longer than lean ones; and the same is said to be true of the bodies of persons killed by lightning, and of those who die by suffocation. A dead body will cool more rapidly in water than in air. It will cool comparatively slowly if covered with bed clothes, or if thrown into a dung heap or into the vault of a sink. Exposed naked on the floor or table, and especially in cold weather, it cools very rapidly. Of course the temperature of a dead body can never be cooler than that of the surrounding medium, except when the latter becomes suddenly raised, although it may feel so to the touch. The latter, however, the touch, is not a safe criterion, owing to the difference in the conducting power; the thermometer alone is to be depended upon for making the observations. The interior of the body retains its heat a considerable time longer than the surface, so that if an autopsy be made even twenty-four hours after death, and after the body has become perfectly cold externally, the abdominal viscera may still exhibit a temperature twenty degrees or more higher than that of the exterior.

It must not be forgotten that coldness of the body is not an unfrequent phenomenon of sickness: it is witnessed in hysteria and ague. In disease, however, it comes on suddenly, and is not permanent; whilst, as an accompaniment of death, it steadily progresses without any intermission.

The singular phenomenon is sometimes exhibited of a body becoming *warmer*, instead of cooler, after

death. This exceptional condition occurs in the bodies of persons who have died from yellow fever, from cholera, tetanus, small pox, and from some other acute disorders. The precise cause of this singular rise of temperature (*post-mortem calorificity*) is not well understood. In some instances the increase of heat amounted to nine degrees F. We must suppose that in these cases, after the general death of the body, there still lingers in some of the tissues a remnant of vitality,—as we know to be the case with the muscular system; and that the rise of temperature is to be referred to certain unexplained molecular changes occurring as the last expression of vitality.

5. The Rigor Mortis or *cadaveric rigidity*, is the next “sign” of death to be noticed. The stiffening of the body after death usually occurs simultaneously with the cooling process. It may be said to be universal in death from any and every cause, although in some instances it may be so slight and transient as to escape notice. It comes on at very variable periods, from a few minutes to 18 to 20 hours, after death. Its duration is also equally variable—lasting from a few moments to several days, or even weeks. After the rigor mortis passes off, the body regains its original pliancy, and decomposition immediately commences. As a general rule, to which however there may be exception, the putrefaction of the body is retarded until cadaveric rigidity ceases.

It commences usually in the muscles of the eyelids (which often become rigid within a few minutes after death); next in the muscles of the neck and lower jaw; then in the chest and upper extremities; afterwards in the muscles of the abdomen and the lower limbs. The stiffness generally passes off in the same order; thus the legs remain frequently quite rigid some time after the upper portion of the body has regained its suppleness. Up to the time when the rigor mortis commences, the muscles are found to still retain their irritability: that is, they continue to respond to a galvanic current and to certain mechanical stimuli; but after the rigidity has set in they no longer exhibit this property; they are now completely dead. Hence the failure of superficial muscle to respond to galvanic stimulus may be regarded as a certain sign of death in a body.

The cause of the rigor mortis is undoubtedly to be referred to the muscular system; evidently the nerves have nothing to do with it, since it still takes place even if the nerve trunks supplying the muscle be divided, and also if the brain and spinal cord be removed. Moreover, it manifests itself equally in the muscles of a paralyzed limb, providing these have not become atrophied through inanition. But it ceases immediately in a muscle if this be cut across. The cause of the contraction is now usually ascribed to the coagulation of the muscular plasma (myosin) an albuminous principle which possesses this property of coagulation to a high degree. The chemical reaction of a muscle in rigor mortis is *acid* (reddens blue litmus) but it becomes *alkaline* after the rigidity has passed off. The muscle, whilst in the state of rigor mortis, is opaque; before this, it is partially translucent. Brown-Sequard has shown that a current of arterial blood restores muscular contractility to rigid limbs.

The duration of the rigor mortis is, as already mentioned, very variable. Although it does not usually set in until the body has begun to cool, still in some of the lower animals, and notably in birds, it often manifests itself while the body is still warm. From observations of Brown-Sequard and others, it appears that the period after death when the muscular rigidity appears is dependent chiefly, if not altogether, upon the previous degree of muscular exhaustion. Thus, in death after lingering and exhausting diseases, as in phthisis, or after protracted convulsing, or where the muscular system has been exhausted by fatigue (as in overdriven cattle or hunted animals), the rigor mortis shows itself early, and lasts but a comparatively short time; whereas, if death occurs suddenly in a previously healthy person, the rigidity is postponed for many hours, but when once manifested, it is maintained for a much longer period. Thus, the bodies of decapitated healthy criminals were observed not to stiffen until after the lapse of ten or twelve hours, and the rigidity lasted over a week, even when the weather was warm. It has been supposed by some that the rigor mortis does not occur in the bodies of persons killed by lightning. This, however, is a mistake, since we have abundant proofs to the contrary. Neither are we to consider that the previous loss of blood by hemorrhage can in any way interfere with it. It is, however, dependent on temperature; chiefly, however, as regards its duration rather than in reference to the time of its invasion. Thus, heat shortens the duration, whilst cold tends to prolong it. Bodies sunk in cold water retain their rigidity for a long time.

When a joint or articulation stiffened by rigor mortis is forcibly bent, if the sign is complete, the stiffness passes off and does not return. If, however, the rigidity is incomplete, it will be resumed. This may serve to distinguish real death from certain cases of catalepsy, tetanus, and hysteria, accompanied by rigidity. In all these latter instances the stiffness will return on removal of the opposing force.

Closely connected with rigor mortis, if not indeed a modification of this state, is the condition described as *cadaveric spasm*. This is exhibited in the bodies of those who have died by sudden and violent deaths, in whom there seems to have been present a powerful will-action just prior to the death, and producing strong muscular contraction at the moment of dissolution. This spasmodic contraction of the muscles, moreover, appears to pass at once, after death, into the usual rigor mortis. The best illustrations of this peculiar condition are afforded in those cases of determined suicides who have taken their lives by shooting themselves with a pistol or cutting the throat with a razor. In such cases it is very common to find the lethal weapon retained in the hand of the victim with a strong convulsive grasp, which requires considerable force to unloose. The same thing is sometimes seen in persons who have perished in company by drowning; they are found after death convulsively grasped in each other's arms. In other instances of drowning, the hands of the corpse are often found tightly grasping some object which they had convulsively seized in the water just before perishing. To a similar reason,

doubtless, is to be ascribed the singular and striking posture which the bodies of soldiers on a field of battle, killed in conflict, are noticed to have assumed in the act of dying. Thus, the attitude of one is described as "resting on one knee, with the arms extended in the act of taking aim; the brow compressed, the lips clenched—the very expression of firing at an enemy stamped upon his face, and fixed there by death. A ball had struck this man in the neck. Another was lying on his back with the same expression and his arms raised in a similar attitude, the Minnie musket still grasped in his hands undischarged."

6. *The flattening of the fleshy parts of the body, while resting upon a hard surface.* This is seen on the back, buttocks, thighs calves of the legs and shoulders, as it does not occur in a living body this condition is regarded as good evidence of death.

7. *Sugillation, or Cadaveric Lividity.* This term is applied to those livid or violet colored discolorations or patches which are observed at variable periods after death, usually after several hours. It is the result of the settling of the blood by gravitation in the capillaries. Hence it is noticed in the most dependent parts of the body, as the back, neck, calf of the leg, on the face, and sides of the body. The patches, at first isolated, gradually increase in size and run into each other. Cadaveric lividity is an unquestionable "sign" of death. As these *death-spots* bear some resemblance to bruises (ecchymoses) which latter are usually the results of violence inflicted before death the examiner should be cautioned against confounding them. A simple experiment of an incision with the scalpel will dispel all doubt upon the subject. If the patch be a true sugillation the cut will never cause blood to appear; at the most only small bloody specks may be seen arising from the division of small veins of the skin. If, however, it be an ecchymosis, the incision will be followed by a flow of blood. Moreover, whilst the ecchymosis is, sometimes raised above the surrounding skin, the cadaveric stain never is. These spots are not affected by age, sex, or constitution, and follow upon all kinds of death, not excepting death by hemorrhage.

Sugillation takes place in the internal organs equally with the exterior, producing in them appearances resembling true congestions for which they are sometimes mistaken. Internal sugillations are also called *hypostatic congestion*, they appear chiefly in the lungs, brain, kidneys and intestines. They should be carefully distinguished by the medical examiner from real congestions or inflammation.

ORIGINAL ARTICLES.

THE EARTH TREATMENT OF TUMORS, WITH AN ILLUSTRATIVE CASE.

BY

ADDINELL HEWSON, M.D.

(Read Before the Philadelphia College of Physicians.)

Miss H. S., a tall blonde, with blue eyes and brown hair, was induced by one of her friends in Philadelphia, who had been cured of an abdominal tumor of some size under my care, to seek my ser-

vices in October last. Her history, as furnished to me by this friend before my seeing her, was that she had been suffering for six years from a steadily growing tumor in her abdomen, which was first detected after a suppression of menses the month previous—consequent on her bathing in the Hudson River on the second day of the flow. This suppression was attended by severe pain in the loins and inguinal regions. These pains and the suppression had continued ever since. When last seen by my patient in the spring of 1878, her abdomen was of enormous size. She was very much emaciated in her limbs and face, but her appetite was very good, and all her bodily functions save that of menstruation healthy. She had four years previously consulted a distinguished ovariologist in New York city, who had proposed operating on her at once, as he said she could not live over a month in her then condition. She subsequently placed herself under the care of a homœopathist, who proceeded at once to tap her in the left iliac region, midway between the umbilicus and anterior superior spinous process. This operation resulted in the discharge of less than a tablespoonful of bloody fluid, and the case was then given up as hopeless.

I saw her for the first time on Sunday morning, October 20, at a relation's house in this city, where she had arrived on the Saturday previous after a journey of over one hundred miles. She was, when I saw her, propped up in bed, suffering with much dyspnoea and exhaustion, and with her tumor so large and projecting on her thighs that she could not see her knees. The integument covering this growth in its lower portion (from the umbilicus down) was in a state of marked hypertrophy (like that of elephantiasis), and in singular contrast with the blue attenuated skin above the umbilicus; this hypertrophied skin was weeping freely a watery fluid so constantly that it had been impossible to keep her dry, or to prevent excessive excoriation and itching; the distension of this portion of the skin had been such as to cause a hernial protrusion in each iliac region, and the whole projecting forwards made it impossible for me to reach the vulva by the full length of my forearm. Her vulva was excessively œdematous.

The patient had no difficulty with either her bowels or bladder, save frequent micturition from the latter. The day that she came to Philadelphia, she was weighed at the depot; this showed that she had gained in weight during the past six years fifty-eight pounds, in spite of the decrease in size of her limbs and chest, for she weighed just before the tumor began to grow 107 pounds, and now 165 pounds. Before starting on her journey she measured herself around, at the navel, and found her circumference there to be 54 inches. I made no attempt at a critical measurement or examination on my first visit (October 20), but simply made a complete covering of the tumor with a paste of clay and water, one and a half pounds of the former to three-quarters of a pound of the latter, retaining it in the usual way with a thin layer of cotton batting. With this she expressed considerable satisfaction: she slept better that night than she had for a long time, and I found her the next morning, still propped up in bed, but very comfortable. When I removed the dressing on account of its having been much broken,

as is usual at first in these cases, she complained of the want of the support it had afforded, and especially of a dragging sensation in front, from the ribs on the right side. Percussion yielded positive dullness up to that point, with very marked resonance above, on the left side, under the excessively expanded thorax, tracing this resonance on the left side I could follow it down on that side of the tumor into the iliac fossa. I was able in the same manner to detect the beginning of the colon, on the right side, but it was evidently much pushed up. The walls of the belly on either side fell over so much as to make it difficult to determine the points of the anterior superior spinous processes.

This examination evidently fatigued the patient, and I desisted from pushing it further. Its effect suggested to me the inquiry of her mother as to her ever having suffered with symptoms of an hysterical character; to which, as I expected from her courageous conduct, I got a negative answer. This was satisfactory as to the location of tumor. They further stated that she was wearing constantly a large sponge in the vagina, to prevent protrusion there. An examination of her urine, which had been saved by my direction, showed it to be free from albumen, heavily loaded with phosphates.

I then renewed the dressing, using the same quantity of clay and water, the same covering of cotton wadding, and as a supporting bandage a four-inch roller around the waist, and a loop of the same breadth fastened to this waistband well back in the lumbar region on both sides, after having been carried under the tumor close to the symphysis pubis. As the patient's appetite was good, and as there were no signs of indigestion, I allowed her freedom as to her diet, and ordered a slight use of stimulants.

On the next day (October 22), I found her still more comfortable; had been less disturbed by micturition during the night, and was lying quite comfortably in bed, less propped up, and somewhat over on her right side. She seemed so much better that, after I had removed the dressing I made a further examination, including deeper explorations by percussion, and a thorough series of measurements with a strong, broad tape-measure. The results of measurement may be seen from those of Oct. 21, in the accompanying table. Deep exploration showed great tympany under the ribs of the left side; then, below, to a line corresponding with the umbilicus, whilst the patient was sitting up, distinct succussion as of a fluid confined to that portion of the peritoneal cavity; there was then the dulness and feeble succussion, or jelly-like movement, belonging to fibro-cystic tumors, extending down from the line of the peritoneal fluid, and confined to the central portion of the belly, as though there might be a fibro-cystic growth from the body or fundus of the uterus. The patient was unwilling to let me pass my hand or fingers into the vagina, so as to explore in that direction, on account of being so sore there, and from the fact that there was the sponge in the vagina which she had just replaced. Rolling this central mass as much as I could on this occasion, I now formed the opinion that I had a fibro-cystic tumor, probably connected with the uterus, to deal with, and that this growth was extensively connected and bound down by

peritoneal adhesions below, and possibly by one band at least in the neighborhood indicated by the dragging feeling she complained of during these manipulations.

TABLE OF MEASUREMENT OF MISS B. S.

Date.	Circumference at		Inches from umbilicus				Circumference three inches	
	Nipple cartilage	Umbilicus	Nipple cartilage	Symphysis pubis	Right ant iliac spine	Left ant iliac spine	Above umbilicus	Below umbilicus
October .. 21	35	43 $\frac{1}{2}$	12	17	16 $\frac{1}{2}$	15	41 $\frac{1}{2}$	40
" 22	34 $\frac{1}{2}$	42 $\frac{1}{2}$	12	17	16	15	42 $\frac{1}{2}$	41 $\frac{1}{2}$
" 23	34	42	12	17	16	15	42 $\frac{1}{2}$	41 $\frac{1}{2}$
" 24	35	42	12	17 $\frac{1}{2}$	16 $\frac{1}{2}$	15	42 $\frac{1}{2}$	41 $\frac{1}{2}$
" 25	33	40	12	14	14 $\frac{1}{2}$	14	45	44 $\frac{1}{2}$
" 26	33	40	12	14	14	14	44 $\frac{1}{2}$	44 $\frac{1}{2}$
" 27	34	44 $\frac{1}{2}$	11 $\frac{1}{2}$	16	14 $\frac{1}{2}$	14	44 $\frac{1}{2}$	44 $\frac{1}{2}$
" 28	33 $\frac{1}{2}$	44 $\frac{1}{2}$	11 $\frac{1}{2}$	14	15	14 $\frac{1}{2}$	44 $\frac{1}{2}$	44 $\frac{1}{2}$
" 29	32 $\frac{1}{2}$	43 $\frac{1}{2}$	11	14	14	14 $\frac{1}{2}$	44	43 $\frac{1}{2}$
November .. 1	32 $\frac{1}{2}$	43 $\frac{1}{2}$	11	14	13	13	44	43 $\frac{1}{2}$
" 4	32 $\frac{1}{2}$	43 $\frac{1}{2}$	10 $\frac{1}{2}$	13 $\frac{1}{2}$	14	14 $\frac{1}{2}$	44	42 $\frac{1}{2}$
" 8	32	44	9	12 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$	43	42
" 11	32	43	10 $\frac{1}{2}$	14	13	14	43 $\frac{1}{2}$	44
" 14	33	43	10 $\frac{1}{2}$	12 $\frac{1}{2}$	11	13 $\frac{1}{2}$	43	43
" 18	32	42 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	11	13	42	42
" 21	31 $\frac{1}{2}$	42	10 $\frac{1}{2}$	12 $\frac{1}{2}$	11	13	41 $\frac{1}{2}$	41 $\frac{1}{2}$
" 26	31 $\frac{1}{2}$	43	10 $\frac{1}{2}$	13	13	13 $\frac{1}{2}$	41 $\frac{1}{2}$	41 $\frac{1}{2}$
" 29	31 $\frac{1}{2}$	42	10 $\frac{1}{2}$	12 $\frac{1}{2}$	12	13	42	42
December .. 2	31 $\frac{1}{2}$	42	10 $\frac{1}{2}$	13	13	13	41 $\frac{1}{2}$	42 $\frac{1}{2}$
" 7	31	43	10 $\frac{1}{2}$	12	12 $\frac{1}{2}$	12 $\frac{1}{2}$	41	42
" 11	31	42 $\frac{1}{2}$	10 $\frac{1}{2}$	13	12 $\frac{1}{2}$	14	41	43
" 14	31	41 $\frac{1}{2}$	9	12	12 $\frac{1}{2}$	12 $\frac{1}{2}$	41	42
" 18	31 $\frac{1}{2}$	41 $\frac{1}{2}$	10	12	11	13	41	42
" 23	32	42	10 $\frac{1}{2}$	12	13	13	41	42
" 26	32	41 $\frac{1}{2}$	10	12	13	13	41	42
January ... 21	32 $\frac{1}{2}$	41 $\frac{1}{2}$	10 $\frac{1}{2}$	13	13 $\frac{1}{2}$	14	42 $\frac{1}{2}$	42
" 27	31 $\frac{1}{2}$	42	10	11 $\frac{1}{2}$	12	13	41	41

On the 22d and 23d, the table which I preserved of her measurement showed a most positive diminution, especially of those which related essentially to the tumor itself—thus, on the 23d she was found to measure 8 inches less around the umbilicus, 2 inches less from symphysis to umbilicus, 3 $\frac{1}{4}$ inches less around the waist above the umbilicus, etc. (This table shows two omissions on the 22d: these were made by my scribe on the occasion—the mother of the patient—who was so delighted with the changes which had been produced that she omitted these whilst expressing her delight, and I did not know this fact until it was too late to remedy the omission.) The patient continued to improve in this way steadily, so that in two weeks all the major measurements had diminished each about 4 inches some of them 3 $\frac{1}{2}$ and others 4 $\frac{3}{4}$. She was then walking about her room, sleeping comfortably on both sides, but preferably on the left, and even dressing herself with a silk dress which she had not been able to make meet on her person for more than two years. She was confident of her complete recovery. During all this time she never took any anodynes or medicinal remedies, save what was necessary to move her bowels twice in the week, pills of rhubarb, aloes, etc.

On the 16th of November, she ventured out in a street car, not going very far however the first time; this did her no harm, but on the contrary she measured less on the 18th than ever before. I was now visiting her at intervals of three or four days, her mother renewing the dressing, if required, in the interim. Her improvement continued steadily; she got to walking on the street, and I visited her about

every four days, making, as the table shows, the same form of measurement, with not so great a decrease as was noticeable at first. During the Christmas holidays she walked over nine squares on Chestnut st., and became so exhausted as to be compelled to go into a store for rest. A day or two after, she noticed some œdema in her right foot, with scanty urine; the latter was tested by me, and found free from albumen. She from this time grew weaker, notwithstanding the free use of stimulants and fluid nutriment, and finally sank from exhaustion on Saturday, February 1, at 12 P.M. The last measurements were taken at her own request, on January 27, four days before her death. They showed no material increase in the growth, the little difference being readily assignable to her increased weakness.

At the autopsy, our first step was to plunge a trocar in on the right side, at a point midway between the right anterior superior spinous process and the umbilicus; here we got the same negative result that the homœopathist did in his operation during the patient's life, at the corresponding point on the left. An incision along the linea alba, below the umbilicus, carried deeply in, over two inches, which was the depth to which the trocar was plunged, gave almost the same absence of fluid; the knife had evidently gone into the growth, and I immediately called the gentleman's attention to the sections made of the empty cysts, and to the soft condition of the fibrous structure proper. Separating the abdominal walls from their adhesions, showed a number of these cysts from the size of a goose egg down to that of a pea, in a state of collapse, and empty of fluid. The peritoneal surface of the abdominal walls here, viz., at those parts referred to before as having their integuments when first seen by me in a state of extreme hypertrophy, like that of elephantiasis, was singularly coated with a product quite evidently in a state of degeneration, and so marked as to be noted at the autopsy.

On extending the incision up above the umbilicus, and along the linea alba, the knife almost immediately penetrated into a large cavity of fluid, serous, and slightly tinged brown; the fluid was removed by sponges, and found to amount to twenty pints. The viscera were all pushed up under the ribs, the liver much shrivelled, and with a broad band—one inch wide and five or six long—extending from the under surface of that viscus to the upper part of the tumor on its right side; a similar band was found extending on the left side to the arches of the diaphragm. These were cut away with portions of the liver and deep structures, for subsequent examination. The abdominal viscera, as far as examined, were healthy; the cæcum was much thrust up under the liver, but healthy, as were the transverse and descending colon and sigmoid flexure. No time was allowed us for examination of the thoracic viscera. The specimens were removed in a bucket, for further and microscopic examination by Dr. Morris Longstreth, who has furnished the following report of his results:—

The tumor was of a fibro-cystic character. It had a firm, jelly-like feeling when handled, and showed on the surface numerous rounded projections, giving a very distinct fluctuating resistance. The tumor in part was covered by a thick, shining

membrane or capsule; in other parts the surface was rough, and showed small granulations on or beneath the investing membrane. The mass was connected by a short, flat pedicle to the fundus of the uterus. It was adherent to the abdominal wall, to the right of the median line, below the level of the umbilicus. The adhesions at this part contained large arterial and venous trunks; the largest venous trunk had a calibre capable of receiving the end of the thumb. In the walls of these vessels, on the surface of the tumor, were calcareous plates, partly encircling their calibre. There was also an adhesion to the fundus of the gall-bladder, by which that viscus was much elongated by the downward pulling of the tumor. The gall-bladder contained a very little, pale, thin mucus and there were found three small, rough, biliary concretions of a black color; one of them was found in the cystic duct, which was closed. In this adhesion ran two large vessels to be distributed to the tumor. Another adhesion was found at the left upper part of the mass, connecting it with the omentum. The omentum was very much shrivelled and rolled up into a firm mass, devoid of fat.

The uterus was found slightly elongated; its os was dilated, with the lips thickened and irregular. A probe entered the uterine cavity a little more than three inches. The uterine tissue was flabby; on section, the muscular substance was found pale and atrophied in appearance, but its vessels were full of blood. The mucous membrane appeared normal. The peritoneal covering was rough, the same granular appearance being present, and there were found on it one or two pea-sized nodules of a white color and firm consistence (fibroids). The ovaries were hard, white, nodulated, and smaller than usual. The broad ligaments were thickened, and their vascular trunks, especially the venous, enlarged and full of blood.

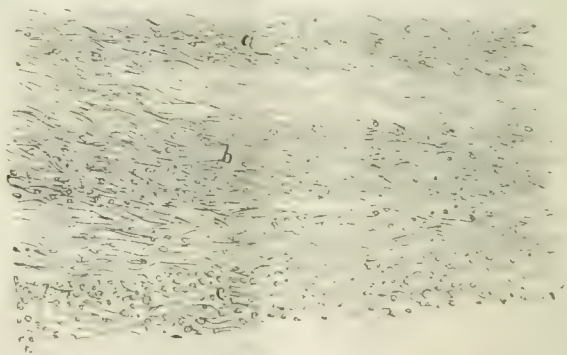


FIG. 1.

Fig. 1.—a shows a band of fibroid tissue, closely felted, having in it a few nuclear bodies, placed between the fibrillæ. At b, the fibrillæ appear swollen and more separated than at a; the nuclear infiltration is much greater. At c, the fibroid tissue is at a minimum; the nuclear bodies occupy the greater part of the area of the band; the fibrillæ are widely separated, the intervening spaces being filled with a nearly transparent, mucoid-looking fluid, in which the nucleated bodies rest. The section shown in the figure was taken from the periphery of a cyst with semi-fluid contents.

A section was made of the tumor on its anterior aspect. Its capsule was thick, firm, and fibrous in character. The cystic projections on the surface of the tumor, especially the cysts on its anterior part, were partly collapsed and evidently in process of re-

duction in size. Their contents were of a tremulous, jelly-like character, whitish in color, and semi-translucent. In the deeper parts of the tumor, the consistence of the fibrous substance varied greatly, as did its color: the major portion was of a pinkish-gray color and semi-transparent; only very limited portions of it presented the usual aspect of fibroid tissue. Numerous bloody points were seen, apparently extravasations of blood. Many large and small rounded areas were found, having a cyst-like appearance, and of a whitish opaque color. The size of these cysts varied from one or two inches down to that of little pea-sized bodies. The contents of the cysts could be easily removed; none contained purely fluid materials; it was sticky and gelatinous in every instance, but varied in degree in this respect, and also in color. The less consistent material was the more translucent, whilst the firmer was of a dull, whitish, opaque color.

A microscopic examination of the firmer parts of the tumor showed only in very limited areas an appearance typical of fibroid structure, but still sufficient to establish the undoubted nature of the growth. In general, the picture presented was of

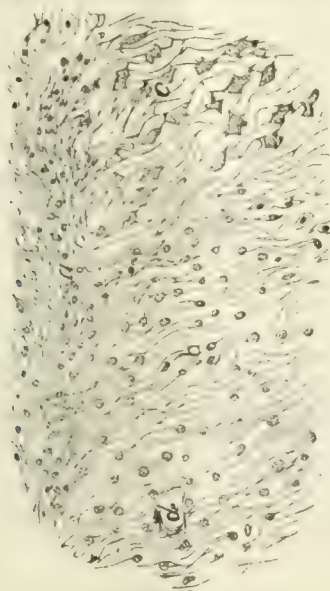


FIG 2.

Fig. 2.—The section was taken from the border of a nearly fluid cyst. At *a* is seen a pretty closely felted band of fibroid tissue, branching around a beginning cyst; *c*; at *b* and *d* represents a vessel; the fibrillæ are widely separated, showing very much the same conditions as *c*, Fig. 1, the fibrillæ, however, are less closely packed. At *e*, (Fig. 2,) the fibrillæ are very scanty, and numerous cells resembling those of mucoid tissue are seen. Passing further to the right, in the section, was found, the cyst with nearly fluid contents, in which the fibrillæ had disappeared completely.

short tracts of fibres, of almost a purely fibrous character, ending abruptly sometimes, or sometimes fading out or lost in tissue quite transparent and homogenous, in which rarely a fibre was distinguishable. This transparent tissue was frequently seen crowded or scattered full of nuclear bodies placed in an irregular manner. In other parts, the cellular elements were of a character resembling those of a myoma, and here also the nuclear bodies were seen presenting the same irregular arrange-

ment. In very limited areas, as seen in the microscopic field, a nearly complete myxomatous degeneration had taken place, making in fact, cysts similar to the larger one already described, so small as not to be distinguished by the naked eye.

The contents of the larger cysts, examined in thin sections, showed a more or less complete myxomatous change in the material. The firmer material removed from these cavities still showed a few remaining bands of fibrous structure, whilst the less consistent, translucent matter showed only a mucoid tissue, in which at some parts the nuclear bodies were quite abundant. The lining of the cyst walls showed no peculiar arrangement of structure, the surrounding tissue passing gradually into the degenerated area. The fibroma found on the peritoneal surface of the uterus showed the typical characteristics of such growths. It was noticed that the arrangement of the fibres was concentric, so much so that in sections taken through the centre of the spherical growth bands of fibres were traced running in complete circles.

The nature of the granular appearance, described as present on the fibrous capsule of the tumor and at other parts, could not be distinctly determined by the microscopic examination. From the appearances presented to the eye, and such as could be determined in the field of the microscope, the conditions seem to be similar to that occurring generally throughout the tumor, viz., a degenerative process.

The liver showed evidences of atrophic changes, and there was also found some increase of the connective tissue of the portal canals, not, however, to be classed as a cirrhotic change.

Anatomical Diagnosis.—Fibroma of the uterus undergoing cystic degeneration.

The tumor and fluid removed, I may say, at the autopsy, weighed, the former $27\frac{1}{2}$ pounds, and the latter 20 pounds, making a total of $47\frac{1}{2}$ pounds, which is in contrast with the weights of the patient at the two periods, viz., before the first signs of the tumor, six years ago, when it was 107 pounds, and immediately before beginning the treatment in October last, when it was 165 pounds (notwithstanding the excessive wasting of her limbs, etc.), which gives 58 pounds to be attributed to the growth against the actual weight of the fluid and tumor of $47\frac{1}{2}$ pounds found at the autopsy, showing a loss of at least $10\frac{1}{2}$ pounds. I might indeed very fairly claim a greater loss in the tumor in weight, for when the patient's weight was taken before the detection of the tumor, her condition of body was good, whereas when she began treatment she was much emaciated, and yet weighed 58 pounds more. This difference of over 10 pounds, however, corresponds with the differences in the measurements at the beginning and end of the treatment.

HOSPITAL RECORDS.

GOOD SAMARITAN HOSPITAL, CINCINNATI, OHIO.

Reported by LEVERETT S. KELSEY, M.D., House Surgeon

SERVICE OF DR. W. W. DAWSON,

Professor of Surgery in the Medical College of Ohio.

SARCOMATOUS DEGENERATION OF THE TESTICLE.

Abraham Bailey, æt 38, U. S., single—farmer.

Father subject to St. Vitus Dance for twenty-five years. Died five years ago of pneumonia and general anasarca. Mother living. Always healthy. Had five brothers and four sisters. Two brothers and one sister living and healthy. Two brothers contracted cold in the army and afterwards died of consumption. One died from an injury. Cause of death in cases of three sisters, not known. Up to age of twenty-six patient had enjoyed good health. Since then has suffered from frequent bilious attacks. Has had neuralgia now and then and one attack of rheumatism. Eight years ago contracted a gonorrhœa and five years ago a chancre. Has been in the habit of cohabiting with women since puberty. At the age of fifteen he gave the right testicle a severe pinch in climbing a fence, since which injury there has been no development of the organ. Has had difficulty in emitting semen during intercourse. About two years ago coition was followed by pain and swelling of the testicle. Pain continued for about a week and was then absent for fourteen months, the gland, however, continuing to enlarge. Seven months ago pain returned and has continued at intervals, up to the present time. Two months ago he was incapacitated for work for the first time, being thus affected about two weeks. Was confined to bed for one week. Enlargement during this time was uniformly progressive. General health good. The tumor is now the size of a goose egg.

Operation.—Patient brought before the class to-day for operation. There being doubt as to whether it was fluid or solid Dr. Dawson introduced a trocar but got only a few drops of blood. Patient being anesthetized Dr. Dawson proceeded as follows. A long incision was made in the scrotum and the diseased gland enucleated. The cord was transfixed by a heavy double ligature, through its centre, a single strand of which was tied on either side. The spermatic cord was then divided and the tumor removed. Edges of the wound brought together with sutures and the wound dressed with lint and vaseline. Distal ends of ligature from spermatic cord left hanging from the wound. Given a hypodermic of morphia.

March 17th. Wound looks well and patient quite comfortable. Ice-bag applied to scrotum. Had to draw his water to-day.

March 18th. Doing well. Hypodermic of morphia A. M. and P. M.

April 5th. Patient left for home to-day. Wound not quite healed, but looked well. But slight inflammation along the spermatic cord. The tumor on examination proved to be sarcoma.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY JOHN A. WYETH, M.D.

INTRAPERITONEAL HÆMORRHAGE, IN A WOMAN OVER EIGHT MONTHS PREGNANT—SUDDEN DEATH—CÆSARIAN SECTION—EXTRACTION OF A LIVING CHILD—CH. MAYGRIER.

M. P., æt. 32, had labored for twenty years in a hat factory exposed to inhalation of mercurial fumes. She is excessively poisoned, the teeth have fallen out

there is marked muscular tremor, etc., etc. On account of this condition existing previously she has had to stop work several times within the last few years. There were no syphilitic, alcoholic or malarial antecedents. Ten years ago she bore her first child to term. The infant died in a few months. On admission to the hospital she is in the seventh month of pregnancy. Under treatment, which included tonics, iodide of potassium, and sulphur baths the tremor diminished; but there developed œdema of the lower extremities and slight ascites. No albumen in urine.

June 15th, forty-two days after admission, Maygrier was summoned and found her in a syncope which terminated fatally almost immediately. The foetal heart was distinctly heard. The os was not dilated. Ten minutes after death Cæsarian section was practiced, a male child extracted, which, although the heart was still pulsating, was not fully resuscitated until after an hour and a half of insufflation. The abdominal cavity was fetid with blood and serum. The liver contracted, but not cirrhotic, and the spleen large. The abdominal veins, splenic and others, extremely dilated and their walls extremely attenuated. The hemorrhage had occurred from an anastomotic branch between the right renal and splenic veins.—*Progres Medical*, Jan. 18, 1879, p. 49.

TWO CASES OF DISPLACEMENT OF THE CERVICAL VERTEBRÆ—ARENDT.

CASE I.—Patient fell, striking violently upon the head. Subluxation forward of the fourth cervical. Reduction a few hours later, by extension and rotation while patient was yet insensible. No functional disturbance. Complete recovery.

CASE II. Subluxation of third cervical forward and to the left, caused by patient springing headforemost into the water and striking against the bottom of the river. Disturbance of motion and sensation in left arm. One day after the accident, reduction attempted under chloroform but failed. During a second effort, the bone was replaced by a sudden movement on the part of the patient. Recovery after four weeks' treatment of the nervous symptoms.—*Centralblatt für Chirurgie*, Feb. 1, 1879, p. 78.

EMBOLIC NECROSIS OF BONE.—W. KOCH.

The experiments were made on dogs. The nutrient artery and veins of the tibiæ were repeatedly tied and in no instance did there follow any interference with the nutrition of the bone. Numerous emboli of chrome-yellow were introduced into these vessels with negative results. A solution of common salt injected into the nutrient artery flowed towards and escaped principally at the tonsal end of the tibia (i.e. in the direction of this vessel). Injecting finely separated globules of quicksilver, which permeated the capillaries produced almost always osteo-periostitis or osteo-myelitis in the tonsal end of the tibia, with simultaneous inflammation of the ankle joint.

Further researches showed that ligature of the nutrient artery had no effect upon the formation of callus—*Berard and Hartmann* arrived at opposite conclusions to *Koch*. The experiments of *Oliver and C. O. Weber*, however lead to the same results as his.—*Centralblatt für Chir.*, Feb. 8, 1879, p. 82.

THE HOSPITAL GAZETTE,

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and the Collateral Sciences.

EDWARD J. BIRMINGHAM, A.M. M.D. } Editors.
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EDITORIAL.

OXYDIZING HUMANITY.

A distinguished savant of Italy, watching the course of decay in nature, developing through the means of oxydation, has been tempted to give an analogous explanation for death among men. Some of the details of the explanation are very satisfactory in a scientific sense; the rest merit the compliment of being pronounced ingenious. His calculation gives a century for a perfect, uninterrupted oxydation of each human organism, therefore interferes with the orthodox span of "three score years and ten." The distinguished savant after having been compelled to prove to us that we were *rusting*, gives us one consolation, in his prescription of a few grammes of a sulphate daily as a *polishing* powder. This sulphate will counteract the oxydizing tendency, and devitalization will be arrested. We shall await with just tolerable anxiety the result of his continued researches; for we have glorious expectations, since he has already so nearly mastered death.

ROLLED SWEETNESS.

Some of our German exchanges are making merry over the misfortunes of some homœopathic physicians of Regensburg. There, as in other places in Germany, the double-barrelled performance, as physician and pharmacist, is forbidden by law, and the regulars in each are prompt in resisting encroachments by the other.

These homœopathic gentlemen were prescribing, as permitted, and furnishing pellets in addition. The druggists prosecuted them before a police magistrate for the latter, and they were fined, as a warning to the others, and a lesson in law for themselves. They appealed to a higher court, and furnished new testimony, the most important of which was the details of the examination of the pellets by regular chemists, who

reported the presence of pure sugar, without even traces of anything else. The court, very naturally held that pure sweetness, in whatever quantity or form could be prescribed and administered by any person; not only could be, but should be. The decision of the police magistrate was reversed and fines remitted.

SANITARY MILK.

The number of deaths of children from diarrhœa, a few years ago in Darmstadt, (Baden) caused great excitement at the time, Medical investigation attributed the prevalence of the disease to the adulteration and to the impurity of milk. Regulations for the inspection of milk were adopted immediately, and have been rigidly enforced since. As a result, the Health Board furnish comparative statistics for the last four years, by which it is shown that infantile mortality has decreased 50%.

SELECTIONS FROM JOURNALS.

INTERNAL AND EXTERNAL USE OF BALSAM OF PERU.

WISS gives (*Deut. Zeitsch. für Prak. Med.*, No. 34, 1879) the balsam internally in the form of an emulsion, according to the following prescription: B. Bals. Peruv., 8 grammes; muc. gum Arabic, 2 grammes; vitellum ovi unius; aq. dest. q. s. ut. f. emulsio, 210 grammes; liq. lignam. 30 grammes. If used externally, the balsam is poured into the wounds undiluted, and the bandages used for dressing them are soaked in it. If there should be a considerable flow of pus, they must be changed several times daily. In a case of chronic catarrh of the bronchi, where the author prescribed bals. copaivæ internally, the sputa improved, but it had no effect either upon the cough or the expectoration. On giving bals. Peruv., the catarrh disappeared, even the cough which had lasted for several years, and the patients remained well for a long time afterwards. The drug has failed to prove successful in tuberculosis. The author has applied the ointment externally in different kinds of wounds, and in every case he has found it a most useful remedy; it promotes the healing of the wound by first intention, diminishes suppuration, calms pain, and is a decided antiseptic. Upon first coming in contact with the wound it causes a burning sensation of pain, which, however, does not last long. All symptoms of inflammation also cease.—*London Med. Record*, March 15, 1879.

TEETH GRAFTING.

Two interesting papers were presented to the Académie des Sciences at its meeting on January 6th (*Comptes-Rendus*, 1879, No. 1), by Dr. MAGITOT, and by one of his pupils, Dr. DAVID. Dr. Magitot, after adverting to his former communications relating to grafting of the dental follicles in certain species of the mammalia, states that in the present paper he carries the subject very much farther, embracing grafting the adult dental organs, and supplying practical applications.

"There are," he observes, "three varieties of dental grafting—1. By *restitution*, in which the tooth removed from its alveolus is restored to it, either immediately, or after a variable period of time. 2. In grafting by *transposition* a tooth is removed from one alveolus, and transplanted into another, whether in the same or in a different subject. 3. In *heterotopic* grafting, the teeth are grafted on various parts of the body other than the jaws, examples of which are recorded as resulting from the experiments of Hunter, A. Cooper, Philipeaux, etc." In the present paper Dr. Magitot confines himself to grafting by restitution, combined with the excision of the diseased parts before restitution is made. His researches on this point were first published in the *Gazette des Hôpitaux* for 1875; others have been published in the theses of his pupils, Drs. David and Pietkiewicz; and the operations of this kind have now reached the number of sixty-two. Of these sixty-two cases, fifty-seven have been definitively cured, a great number of these cures dating back from two to two and a half years. The age of the patient does not seem to have exerted any influence on the results, and the various kinds of teeth have been alike excised and grafted. The surgical indication for grafting combined with excision is essentially based upon the diagnosis of a special lesion characterized by *chronic periostitis* of the summit of the fang of the tooth—*i. e.*, inflammation of the periosteum, denudation and necrosis of the subjacent cement, and absorption of the ivory. It is a kind of mortification of the root. The morbid process which results consists in a series of accidents, as phlegmon of the gums and face, denudation and necrosis of the alveolar margin, and mucous or cutaneous fistulæ, etc. These accidents sometimes assume the chronic form and sometimes are intermittent. Left to themselves, they may give rise to great mischief, such as deformities and cicatrices of the face, and a general condition that may even place the patient's life in danger. As the mortified summit of the root of the tooth cannot be otherwise got at, preliminary extraction is required in order to enable the diseased portion to be excised, the portion of the tooth which remains sound then being restored to its original place. Before restoring it the surgeon may, if necessary, resort to various procedures, such as washing out the purulent cavity or removal of sequestra, while as regards the tooth itself, he may excise portions of its crown, or perform plugging in the case of caries. In a good number of the cases treated, the periostitis of the summit was not accompanied by concomitant caries, but in others a co-existing caries was able to be stopped while the tooth was out of the mouth. The subsequent treatment consists in the application, when necessary, of gutta-percha supports, drainage, and the removal of any mortified portions of the alveoli, etc. In general the consequences of the operation are very simple. When consolidation has been effected a slight local reaction takes place, accompanied by few or no general phenomena. The fistulæ close, the discharge ceases, and complete consolidation takes place in from a week to a fortnight. The tooth recovers its vascular connections and its uses are re-established. When the attempt fails, the tooth is simply eliminated by suppuration in a few days.

M. David in his paper thus speaks of "grafting by restitution":

Re-implantation combined with extraction is a procedure which enables us to subject the teeth to operations which would have been impracticable in the mouth. We have personally resorted to it—1. For the adjustment of certain anomalies of direction. 2. In the treatment of caries when the situation of this did not admit of our reaching the pulp in order to destroy it, and practice *in situ* a satisfactory stopping. 3. In the treatment of the form of alveolo-dental periostitis, in which this affection is limited to the summit of the root. It allows of our excising the affected parts just as is done on a diseased bone; and this excision is the only means of radically curing the neighboring lesions which so often accompany this form of periostitis, as osteitis, necrosis, fistulæ, etc. If the tooth is carious it can also then be stopped. 4. It may also be resorted to in order to facilitate the execution of operation on another tooth or in another part of the mouth. The consolidation of the tooth replaced in its alveolus takes place, on the mean, from the tenth to the fourteenth day. It is more rapid (by the second or third day) when the roots are healthy. In case of periostitis it is slower; and then, principally when there are osseous lesions in the vicinity, the existence and maintenance for some days of a well-established dental fistula is of first-rate importance. By this means the suppuration obtains free external issue, and does not disturb the organic phenomena which are in progress between the root of the tooth and the alveolus. To the discharge of the pus by the alveolus is due our single failure. The various lesions of the vicinity (fistula, etc.) in general are cured soon after consolidation takes place. The cure has remained durable in our earliest cases for more than two years.

"Thus methodized, this procedure seems to us to carry the curability of dental affections to its farthest limits. It has given us but one failure in twenty-two cases."—*Med. Times and Gazette*, Feb. 1, 1879.

OLEATE OF ZINC IN THE TREATMENT OF ECZEMA.

After using the remedy for nearly six months, in a large number of cases arising in hospital and private practice, I desire to record my testimony in favor of the efficacy of the ointment of oleate of zinc in the treatment of eczema. For this important addition to the materia medica, the profession is indebted to Dr. Radcliffe Crocker of University College Hospital, who gave the formula for its preparation, and some cases illustrative of its use, in a paper published in the *Brit. Med. Jour.* of October 26th, 1878. The writer concluded his observations with the following words: "I have treated a large number of cases with this remedy with most satisfactory results, so that I can with confidence recommend it as one of the most useful preparations for eczema that we possess." This statement is very unequivocal; I can as unequivocally adduce my own experience in its confirmation. I have always used the oleate of zinc made into ointment, either with vaseline or with lard. The preparation with vaseline I have employed in private practice, and

that with lard, on account of its comparative cheapness, for my hospital patients. Vaseline is preferable to lard, because it is not so liable to change, but also because the greasiness of the latter injures a patient's clothes and sometimes disagrees with his skin. The ointment made with vaseline may be rendered more "elegant" by the addition of one drop of otto of roses to each ounce. My house-physician, Dr. John Wood, informs me that he has found the oleate of zinc ointment very serviceable in the treatment of eczema, and especially in the eczema capitis of children. One of my patients, a sexagenarian clergyman, the subject of eczema, probably gouty, of several years' standing, affecting the lower part of the abdomen, the genitals, and the upper portions of the thighs, tells me that he recovered completely after using the vaseline ointment for a few weeks.

JAMES SAWYER, M. D., in *Brit. Med. Jour.*

A NEW DIGESTIVE.

Interesting further correspondence has, according to *Nature*, appeared in the *British Guiana Royal Gazette*, relative to the qualities assigned to the fruit of the papaw-tree. It has been recently asserted, in an article in the *Pharmaceutical Journal*, "that the most interesting property attributed to it is the power of its juice to render bad flesh tender." Mr. Monro of Georgetown furnishes certain facts which, he says, are commonly known to the natives of British Guiana relative to this fruit. A horse tied near one of these trees rapidly loses health, and a stud horse becomes useless. Any pressure on the body of the animal leaves an inelastic indentation. The sap of the tree will soften steel; and, before the process of tempering was known in the colony, the blacksmiths used to drive their brittle chisels and plane vices into the wood, leaving them there for a day or two; and tough meat, wrapped in the leaf for only a few minutes, becomes tender; and the same thing happens if it be suspended against the tree itself. The seed of the ripe fruit is an excellent vermifuge, and children have a great partiality for it.

THE PLAGUE.

Prof. Virchow recently delivered a lecture on the plague before the Berlin Medical Society (*Berliner Klin. Wochenschrift*, No. 9, 1879) which deserves special attention, and of the principal points of which the following is an abstract:—

Virchow began by stating that our knowledge of the plague in the light of modern medical science is practically *nil*. The latest and most copious reports on the subject date from the great epidemic in Egypt, and from the Commission of which Bulard, Clot-Bey, and others were members. "The clinical and anatomical methods which the Commissioners used in their investigation were not indeed unsuitable; but they were so imperfect that we are still in doubt what the state of things in Egypt really was." Hence Virchow blames the European Governments, and especially the Russian, for not sending properly qualified men to the places where plague was said to be prevalent, to examine the disease with modern appliances, and in harmony with modern knowledge.

The universities of Kazan and Kharkov could have furnished thoroughly trained observers; whereas, in fact, unknown men have been selected for the work. Passing to the plague itself, Virchow points out that we do even now know whether the buboes so constantly spoken of as a symptom are an integral part of the disease, or whether the very acute forms of plague can occur without them. This, he says, is one of the most doubtful questions, and one on which the old observers were not agreed. Another question is: What is the nature of the change in the lymphatic glands on which the buboes depend? Is it a cellular hyperplasia, or an hyperæmia? May hyperæmia be combined with hæmorrhagic effusions into the gland substance? In fact, is it not probable that in the plague-bubo all the changes occur which we now know to be associated with all acute glandular swellings of whatever kind? Virchow inclines to answer this last question in the affirmative.

We are also in the dark as to why the plague-bubo ulcerates. The best observers of this condition assert that the suppuration begins at the outside of the lymphatic gland, but it is difficult to find an analogous change in the ordinary acute febrile diseases of Europe. It is only rarely that in typhoid fever the mesenteric glands suppurate, but then the suppuration, says Virchow, is within the gland, and the process is identical with the formation of a typhoid ulcer in the bowel. Occasionally suppurating inguinal buboes occur in typhoid fever, but in exanthematic typhus Virchow has never met with them. If we knew that the suppuration originated in typhoid fever and in plague in the same way, we should be justified in assuming some relationship between the two diseases. At present there is a gap in our knowledge which needs to be filled up. Still, in spite of our ignorance on this point, Virchow confesses that he regards the buboes as the most important diagnostic signs of plague. They are present in the great majority of all the cases.

Next to them comes the "carbuncles," which are found in about one-fifth of the cases, and which closely resembles those of malignant postule (*Milzbrand*). Virchow has failed to convince himself that they ever occur in the internal organs. Petechiæ, or rather large ecchymoses, are common in the skin, and still more so in internal organs. These three phenomena—buboes, carbuncles, and petechiæ—are the most prominent symptoms of the plague, in company with severe fever of rapid onset, and soon involving the nervous system. Swelling of the spleen is a less characteristic, but appears to be a very constant, symptom; and the pathological alteration is probably similar to that occurring in other infectious diseases. Swelling of the liver and kidneys is also described, and may probably be referred to acute parenchymatous degeneration.

In spite of the fact, already mentioned, that buboes are never found in exanthematic typhus, Virchow points out that in the beginning of every epidemic of plague the medical men declare the disease to be typhus. This was the case recently when plague appeared in Kurdistan and Mesopotamia. The Turkish doctors diagnosed typhus; and it was not until Dr. Tholozan, the Shah's physician, took up the matter, that the truth came out. And this brings us to the origin of the epidemic in Astrakhan

and on the borders of the Caspian Sea. Some authorities, and chief among them Prof. Hirsch of Berlin, believe that the plague was somehow imported from India, where two forms of it have been met with within living memory; the first called "Palipest," which spread from Cutch and Gujerat in the Northwestern Provinces south of the Indus into the interior, and which disappeared for the last time in 1838; and the second, an endemic plague, first described by Allan Webb, and which is limited at the present day, according to recent report of Dr. Lewis, to two small districts in the Himalayas, not far below the snow line on the borders of Nepaul.

Professor Virchow therefore assumes—and the argument appears conclusive—that the present Eastern plague cannot be the Palipest, which was long ago extinct, nor the endemic plague of North India, which has never been known to break its barriers. His own theory is, that the modern plague has come from Kurdistan and Mesopotamia via Persia, and has thence reached the Caspian Sea. Whether its transmission has been due to the movement of troops in the late war cannot, he thinks, be at present decided.

And is what has been called the plague really the plague after all? Professor Virchow thinks that, if the reports of suppurating buboes are correct, it is, though the extent of the epidemic has probably been exaggerated. In any case he considers that his own Government was perfectly right to take all precautions possible against the introduction of the plague into Germany. He doubts, however, the possibility of protecting a long land frontier by any system of quarantine based on passes and bills of health. "If the Russian officials," he says, "were angels, it might be done, but they are men, and hence fallible." Virchow refers, *en passant*, to the way in which the province of Bari, in the kingdom of Naples, was protected by quarantine in 1815 against the plague, which had attacked the Noya, one of the last places in Europe which suffered from it. Cordons of troops were drawn round the town at widening intervals, and the sentinels had orders to shoot any person who, after a single warning, tried to break through. The historian Schönberg, who relates the story, says the shooting had "a very salutary effect," and Virchow states his own opinion to be that "Border quarantine" (*Grenzsperre*) is an illusion unless shooting is allowed.

The practical measures he suggests are—first, to determine whether the returning Russian army is or is not plague-free; and, secondly, in case the plague should reach Germany, to put in force the sanitary measures common to all epidemics, and, while allowing full communication between country and country, to isolate and treat all patients as rapidly as possible. Remembering that the plague has certain analogies to malignant pustule (*Milzbrand*), and that the skin and hair of a diseased beast can retain their infectious power for months, Professor Virchow refuses to admit that clothes, bedding, and such like may not convey the contagion of plague in a similar way. The analogy of malignant pustule to plague, it should be added, he considers so strong that he regards "it as very possible that an organism may be discovered by which the

disease is conveyed," though "the search for it has scarcely begun." Lastly, Professor Virchow says a word on disinfection, and, in opposition to Professor Pettenkofer, who has advised the German Government to rely on sulphurous acid, he recommends that all clothes, linen, wool, rags, etc., shall be subjected to the dry heat of a heat of a proper oven, and he recalls Bulard's assertion that *immersion of infected objects in water* for a few hours destroys the contagion of the plague entirely. On the whole, the impression which Virchow's lecture leaves on our mind is, that there is no great need for apprehending an epidemic of plague in Western Europe. At any rate it is clear that anything like panic is foolish, and Professor Botkin's recent error in diagnosing syphilis as plague at St. Petersburg should warn medical men to keep their heads cool, and not let their fears get the better of their judgment. Professor Virchow will not have spoken in vain if he helps to tranquilize the European public.—*Med. Times and Gazette*, March 15, 1879.

CHLORAL AS AN ANTIDOTE.

Prof. Huseman, of Gottingen, has been engaged in a long series of observations on the antagonistic and antidotal actions of drugs, and some of his investigations which relate especially to chloral are described in a recent number of the *Archiv für Experm. Pathologie*. Of these the following is a summary. Chloral hydrate is known to act as an antidote to strychnine, lessening the spasm, and even preventing death. It has a similar action in the case of the mixture of strychnine bases sold under the name of brucin, and also against the opium alkaloid thebaia, which simultaneously tetanises and lessens sensibility. The spasms produced by chloride of ammonium diminish under the employment of non-fatal doses of chloral hydrate, and can indeed be completely stopped. Nevertheless death occurs, probably from the paralyzing effect of both substances on the respiratory centre. The antidotal effect of chloral on the action of the poisons which cause convulsions by their action on the brain is not the same for all these substances. The quantity of the poison which can be counteracted by the antidote appears to be considerably greater in the case of picrotoxin than in the case of codeia. Of the latter, indeed, the fatal dose, and even a quantity half as much greater, can be rendered harmless, but twice the fatal dose cannot be counteracted, and is still fatal. Calabarin is counteracted by chloral hydrate in about the same degree as codeia. The symptoms produced in rabbits by poisoning with baryta are not materially altered by the action of chloral, which does not appear to prolong life. So, also, with carbolic acid; the spasms produced by it are not arrested by chloral, and the minimum dose fatal to rabbits still produces death. The combination of a fatal dose of carbolic acid with a non-fatal dose of chloral hydrate causes in rabbits a remarkable fall of temperature, which is not produced by the action of these alone. As a rule, when chloral antagonizes the action of these cerebral poisons, the respiration sinks in frequency much more than in the case of the analogous action of chloral on the tetanizing poison. The depression

of temperature caused by the chloral is almost independent of any peripheral loss of heat. The elevation of temperature due to division of the spinal cord is hindered by chloral hydrate. The depressing action of thebaia and codeia on the cerebrum, which is distinctly perceptible in many animals in addition to their action in causing spasm, is the chief effect recognizable in man. On the one hand, thebaia has a distinct action in lessening pain; and on the other, in human poisonings with this opium alkaloid, chloral hydrate is of little use, and in the case of poisoning by codeia, on account of the collapse which is produced, it is positively injurious.—*Lancet*, March 15, 1879.

CYSTOTOMY FOR CYSTITIS.

At a late meeting of the Clinical Society of London (*Lancet*, April 5, 1879), Mr. Teevan read notes of a case of cystotomy, the patient (who was exhibited being a wine-cooper, aged 43, who came under care in July, 1875, having a stone in the bladder two inches by one inch and three-quarters. The urine was a mass of muco-pus streaked with blood; no renal elements could be found. He suffered much pain, and could not work. Mr. Teevan determined to crush the stone because he had, by lithotrity, completely cured a similar case, where the stone was only a quarter of an inch smaller, and he wanted to find out the extreme limit to which the operation could be advantageously pushed. Accordingly, in twenty-six sittings of about one minute each, he completely removed all the stone. The patient was, however, not cured, but only relieved. The pain he suffered incapacitated him from work, and the urine contained much muco-pus. For many months various medicines and injections were tried without success. Under these circumstances he determined to perform cystotomy. The bladder was carefully examined by many surgeons, but not a particle of stone could be discovered. On Sept. 17th, 1876, Mr. Teevan opened the bladder by a median incision from the perineum, incising the neck vertically with a probe-pointed knife to the depth of about half an inch. The immediate effect of the operation was that the patient was relieved of his pain, and the urine began to clear about ten days afterwards. Three weeks after the operation the patient was apparently cured of his cystitis. The wound, which had been kept well open, was then allowed to close, and three weeks later the patient was perfectly well and water-tight. He remained perfectly well, and had continued uninterruptedly at work ever since. Cystotomy was rarely performed in England, and was only mentioned in a few surgical works of modern date. In America, however, it had been established as a set operation since 1850, when Willard Parker, of New York, introduced it. The propositions he would lay down were—1. That cystotomy was indicated in those cases of obstinate cystitis which resisted ordinary treatment. 2. That renal disease was no bar to the operation. 3. That the general conditions of the patient rather than the results of an examination of the urine ought to determine whether, in a given case, an operation were justifiable or not.

Mr. Howard Marsh asked whether it would not

have been better in this case to have cut in the first instance.

Mr. Bryant agreed that cystotomy was an operation which should be more frequently performed for chronic irritation of the bladder which resists other treatment, and so often leads to fatal renal disease. In three out of six cases in which he had performed it there was great relief and recovery, but the rest died from prostatic and renal disease. He would then hesitate about performing cystotomy if the kidneys were diseased, for in such cases the slightest interference might be fatal. As an instance of this, he mentioned the case of a man who, during treatment for a urinary fistula, had several rigors. Some time after he was seen by Mr. Bryant who, aware of these rigors, did not think it wise to operate, but employed catheterism up to No. 10. The catheterism induced rigors, and the patient died from uræmia due to suppurative nephritis. Aston Key had first pointed out to Mr. Bryant the advantages of cystotomy for chronic bladder cases, and used to regret that he had never performed it.

Mr. Heath asked whether Mr. Teevan divided the whole length of the prostrate along the floor; for in that case (as pointed out by Mr. Teevan himself, as an objection to median lithotomy in children) the ejaculatory ducts would be severed? In older people the operation would be more difficult and risky, on account of the large size of the prostate. Was the hemorrhage free?

Mr. Teevan said it might have been better to have cut in the first instance, or rather to have followed up a single lithotrity by an external urethrotomy. Even when renal disease was present, cystotomy was justifiable, because of the great relief to the local symptoms afforded by the operation, and the chance of recovery. He mentioned a case of cystitis after lithotrity, which was allowed to go on for about two years, and was then relieved by cystotomy. A medio-lateral operation would, he thought, be preferable in old men, and the objection to median lithotomy in boys—namely, the risk of emasculating them—was of slight importance in the case of middle-aged adults.

ON THE RAPID CURE OF ASTHMATIC ATTACKS BY HYPODERMIC INJECTIONS OF MORPHIA AND ON THE EUPNOEIC ACTION OF THE LATTER.

Although the sedative effect produced by hypodermic injections of morphia in cases of asthmatic attacks, or of certain paroxysms of dyspnoea, has been well known for a long time, yet most practitioners prefer to employ preparations of belladonna or datura, because they do not tend to diminish the bronchial secretions. M. Huchard, having studied carefully the effects of, and the objections to the use of morphia in asthma, has come to the following conclusions. In the most intense attacks of asthma a hypodermic injection of morphia will cause immediate relief. He even goes so far as to affirm that if these injections are repeated, they will, by cutting short each attack at its beginning, succeed in rescuing the economy from this spasmodic habit, and thereby cure the disease. After giving a short

historical sketch of his subject, M. Huchard proceeds to study carefully the different forms under which asthma can show itself; he compares pathological facts with the results which have been obtained from the therapeutical study of preparations of morphia, and in this way, succeeds in explaining theoretically facts which he had learned empirically from clinical experience.

In another part of his work, M. Huchard enters fully into the importance of administering morphia preparations hypodermically in other cases of dyspnoea, such as cardiac asthma or uræmic dyspnoea. In a third chapter he dwells upon the different results produced by morphia preparations, according to whether they are given hypodermically or by the mouth. He sums up his exhaustive and interesting study by the following words: Morphia makes one breathe freely.—*London Med. Record*, March 15, 1879.

CASE IN WHICH A TESTICLE CONGENITALLY DISPLACED INTO THE PERINEUM WAS SUCCESSFULLY TRANSFERRED TO THE SCROTUM.

Mr. Thomas Annandale, Professor of Clinical Surgery in the University of Edinburgh, reports (*Brit. Med. Jour.*, Jan. 4, 1879,) the following case of this rare congenital affection of the testicle, in which, so far as we can ascertain, for the first time, the displaced testicle has been successfully transferred by operation and permanently retained in the scrotum.

On the 15th of June, 1877, Dr. Irvine, of Pitlochry recommended to my care a male child, aged three, who had been brought to him suffering from pain in the region of the perineum, which was much aggravated when the little patient was allowed to walk or run. It was noticed that some abnormality existed in connection with the right testicle shortly after birth, but it was only when the child began to walk that the pain directed special attention to the part. Dr. Irvine, finding that the cause of the pain was a displacement of the right testicle, asked me to admit the child into my wards with the hope that something might be done to relieve the symptoms.

An examination of the patient showed that the right side of the scrotum was empty, but its skin and other tissues were well-developed. On searching for the cord, it was felt to come out through the external abdominal ring in the usual way, but, instead of passing down into the scrotum, it could be traced to the perineum, where the right testicle lay. This displaced testicle was felt to be well-developed, was of the usual size, and was lying under the skin and cellular tissue at a point a little to the right side of the middle line of the perineum. It was situated at a little lower level than if it had occupied its usual place in the scrotum. When pressure was made over the testicle, it caused much pain. The left testicle was normal in situation and development.

On the 5th of July, I performed the following operation, with a view of transferring the displaced testicle to its proper position in the scrotum. An incision commencing over the external abdominal

ring and extending half way down the scrotum, was made on the right side, so as to expose the cord, which was then seized, and by means of it the testicle was drawn out from its abnormal position. This was not done without the division of some adhesions, and there was one fibrous band attached to the bottom of the testicle above and to the tuberosity of the ischium below, which appeared to correspond to one process of the gubernaculum testis, and which required to be cut across before the testicle would leave the perineum. The scrotum was now opened up more freely, and the drawn-out testicle was placed in it and securely fixed there by means of a catgut stitch passed through the bottom of the scrotum and lower part of the testicle. The opening into the perineum along which the cord and testicle had passed was subcutaneously stitched with catgut, and a small counter-opening made at the most dependent point of the perineal cavity which had contained the testicle, so as to allow any fluid to drain away and insure the complete closure of the cavity and prevent the testicle from passing again into it. The wound in the scrotum and groin having been stitched, antiseptic dressing was applied. The whole of the operation was performed antiseptically.

The patient's progress after the operation was satisfactory in every way, and the wounds were healed on the 31st of July. A few days afterwards, he returned home with his testicle securely resting in the scrotum in a perfectly natural manner.

In November of the same year, Dr. Robert Irvine was kind enough to write me that he had recently examined the boy, and had found both testicles in the scrotum, and occupying much the same position on their respective sides; the only difference between the two being that the right one felt a little smaller and harder, was more deeply situated, and somewhat more fixed than the left one.

Mr. Curling, in his very valuable work *On Diseases of the Testis*, relates a case very similar to the one just reported, in which he endeavored to replace and retain the testicle in the scrotum, but he did not succeed in doing so, owing, he thinks, to "the cremaster retracting the organ after the separating of adhesions which retained it, as the cord was quite long enough to admit of its removal to the intended site." Mr. Curling further remarks: "In another operation, I should endeavor to secure the testicle to the bottom of the scrotum with a suture." The employment of the subcutaneous catgut suture so as to close completely the perineal cavity, in addition to stitching the testicle to the bottom of the scrotum, as suggested by Mr. Curling, insured, I consider, the success of my operation, and I would, therefore, advocate this proceeding in every similar case.—*Am Jour. Med. Sci.*

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week mixtures for venereal diseases and mixtures for rheumatism. The abbreviations used are O. D. P. (Out Door Department of Bellevue Hospital,) Inf. H.

(Infant's Hospital, H. I. H. (Hart's Infant Hospital), B. H. Bellevue Hospital, C. H. (Charity Hospital Ins. As. (Insane Asylum.)

MIXTURES FOR VENEREAL DISEASES.

93. *Mist. Bimodidi.*

℞ Hydrarg. Chlorid. Corros.....	gr.	1
Potass. Iodidi.....		2
Tinct. Gent. Co.....	fl.	2

Mix. Tincture of cinchona, or other liquids containing *alkaloids* should not be used in the above mixture, as these bodies are apt to be precipitated as iodohydrargyrate, and the patient would perhaps take the whole precipitate in the last dose.

94. *Mistura "Bumstead."*

℞ Copaibæ.....	fl.	3	1/2
Tinct. Ferri Chlor.....			
Tinct. Canthar.....aa	fl.	2	
Glycerinæ.....	fl.	1/2	
Syrupi q. s. ad.....	fl.	4	

Mix. Dose : a tablespoonful

95. *Mistura Copaibæ* (O. D. P.)

℞ Copaibæ.....	fl.	3	1
Liquor Potassæ.....	fl.	3	1/2
Spts. Æther. Nitr.....	fl.	1	1/2
Pulv. Acaciæ.....			3
Glycerinæ.....			
Aquæ.....aa	fl.	3	6

Mix. Dose : two teaspoonfuls. To be well shaken before use. (Dr. Banks.)

96. *Mist. Hydrarg. Bichlor* (O. D. P.)

℞ Hydrarg. Chlor. Corros.....	gr.	1
Potass. Iodidi.....		2
Tr. Gent. Co.....	fl.	4

Dose : a teaspoonful.

97. *Mistura "Lafayette."*

℞ Copaibæ.....			
Spts. Æther. Nitr.....			
Spts. Lavand. Co.....aa	fl.	3	1/2
Liquor. Potassæ.....	fl.	1	
Mucilag. Acaciæ q. s. ad...	fl.	3	4

Mix. First mix the copaiva with the liquor potassæ; then add the two spirits; finally pour the mixture, under brisk stirring into 2 fl. oz. of mucilage, a small quantity of which may separate. Strain through a strainer, if necessary, and add enough mucilage to make the mixture measure 4 fl. oz.

Mix. Dose : a tablespoonful. To be well shaken before use.

98. *Mist. Potass. Iodidi* (C. H.)

℞ Potass. Iodidi.....	3	4
Syr. Sarsap. Co.....		
Tinct. Gent. Co.....aa	fl.	3

Mix. Dose : a teaspoonful.

99. *Mixed Treatment: Taylor's* (O. D. P.)

℞ Hydrarg. Biniodidi.....	gr.	1
Potass. Iodidi.....	3	4
Syr. Sarsap. Co.....		
Aquæ.....aa	fl.	3

Mix. Dose : a teaspoonful. (Dr. R. W. Taylor.)

100. *Mixed treatment: Thompson's* (O. D. P.)

℞ Hydrarg. Biniodidi.....	gr.	1
Potassii Iodidi.....		3
Tinct. Aurantii.....	fl.	1
Aquæ.....	fl.	3

Mix. Dose : a teaspoonful (Dr. Beverhout Thompson.)

101. *Syr. Hydrarg. Biniodidi* (O. D. P.)

℞ Potassii Iodidi.....	gr.	80
Hydrarg. Biniodidi.....	gr.	1 1/2
Syrupi.....	fl.	2

Dissolve and mix. Dose : a teaspoonful. (Dr. Banks.)

MIXTURES FOR RHEUMATISM.

102. *Mist. Acidi Salicylici* (O. D. P.)

℞ Acidi Salicylici.....	grs.	100
Potass. Acetat.....	grs.	320
Glycerinæ.....	fl.	1
Aquæ q. s. ad.....	fl.	4

Mix. Dose : a teaspoonful.

103. *Mist. Anti-Rheumatica* (B. H.)

℞ Sodii et Potass. Tart.....		1/2
Potass. Nitrat.....		5
Vin. Colchici Sem.....	fl.	2
Aquæ q. s. ad.....	fl.	2

Mix. Dose : a teaspoonful.

104. *Mist. Anti-Rheumatica* (C. H.)

℞ Sodii et Potass. Tart.....		1/2
Vin. Colchici Sem.....	fl.	2
Aquæ q. s. ad.....	fl.	2

Mix. Dose : a teaspoonful.

105. *Mist. Anti-Rheumatica* (O. D. P.)

℞ Potass. Acetat.....		3	6
Vin. Colchici Sem.....	fl.	3	
Aquæ q. s. ad.....	fl.	4	

Mix. Dose : a teaspoonful.

106. *Mist. Anti-Rheumatica* (H. I. H.)

℞ Potass Iodid.....		1
" Acetat.....		4
Tinct. Colchici Sem.....	fl.	2
Aquæ.....		2

Mix. Dose : a teaspoonful.

NEWS ITEMS AND NOTES.

Opiumphagy, otherwise called opium eating, has grown to formidable proportions in the United States. In 1867, when our population was thirty-seven millions, the amount of opium imported was 136,000 pounds; in 1876, with an increase of but seven millions in the population, the importation had risen to 340,000 pounds. Thus, during these ten years, while the population had increased only about twenty per cent., the importation of opium had considerably more than doubled. Much of it is used for medical purposes, but investigation has shown that the larger proportion of it is consumed by opium eaters. It is hardly credible, though it is given on doctors' authority, that in the city of Indianapolis there are nearly 500 of these, who made away with nine hundred pounds of the drug last year. In the State of Michigan, statistics on the subjects have been furnished by ninety physicians; they reported 1,313 habitual users of opium, or an

average of 13 cases within the observation of each of these physicians. Every evil is traced to the hard times, and so is the increase in the use of opium, which is a drug that makes people temporarily negligent of the hardness of the times.

Buried Alive.—One hundred and sixty-two authentic cases of living burial are put on record by the eminent French physician, Dr. Josat. The period of unconsciousness before burial, in these cases, lasted from two hours to forty-two. The causes of apparent death were these: Syncope, hysteria, apoplexy, narcotism, concussion of brain, anæsthesia, lightning, and drunkenness.

A Good Move.—According to the St. Petersburg *Golos*, the Russian Government will hereafter compel the proprietors of all factories to provide free hospitals and medical attendance for those of their employees who contract disease or suffer injuries in the factories.

Cold Comfort.—A well known medical baronet, about whom some good stories are told, but who is not a universal favorite, was recently called to the country; and, on careful examination, found severe pericarditis which had not hitherto been noted. When the doctors retired for their private consultation, the consultee made profuse apologies for his diagnostic omission. The facetious baronet patted his junior on the back, and comforted him in a Jobish manner by saying, "Perhaps it is just as well that you did not find it; because, you know, my dear fellow, *if you had you might have treated it.*"—*American Practitioner.*

Dressmaker's Fingers.—THE *Journal d'Hygiene* draws attention to a deformity, occurring in tailors and dressmakers, which has not yet been described. It is a contraction and ankylosis of the two upper phalanges of the fourth and fifth fingers of the right hand. This deformity is due to the position of the hand in sewing, when the first three fingers of the right hand are always active, while the other two are doubled up in the hollow of the hand, where they remain immovable. After a certain time, the tendons and flexors begin to contract, and adhesions and ankylosis are soon formed. The author advises prophylactic treatment: the hand must be extended on a board during the night, and the patient be made to use all the fingers in gymnastic movements, and in working in the house and garden.

New Method of Covering the Taste of Cod Liver Oil.—Dr. Ponteres mixes a tablespoonful of cod-liver oil with the yellow of an egg, and when they are thoroughly combined adds to them a few drops of spirits of mint and half a glass of sugar-water. In this way he obtains a sort of mulled egg, which differs very little from ordinary mulled egg, and which presents neither the taste nor the odor characteristic of cod-liver oil. It can consequently be taken without repugnance by the most fastidious patients.—*Union Med.*

Physician's Black Book.—The physicians of Peru have formed a society for their own protection, and have a black book containing the names of all the members, and 2,608 names of debtors, with the amount due from each of them for medical services. The regulations require each physician to refuse at-

tendance to any one except in cases of urgency), unless satisfaction is given to the previous physician. *Gaceta Medica de Lima Peru.*

(The grocers of Cincinnati have a similar society, but have a regular sale of unpaid bills to the highest bidder.

The country physicians of this State need some such society to protect themselves. Hardly one physician in twenty, with a large practice, and keeping two horses in constant use, can collect one thousand dollars per annum. Although the prices are the same as for the past fifty years, yet it seems that all other bills are settled before the family physician can get his accounts paid.—*Translator.*)
—*Va. Med. Monthly.*

Changes in the Faculty of the College of Physicians and Surgeons, Medical Department of Columbia College, New York, May, 1879.—The chair of Surgery has been divided between Dr. T. M. Markoe and Dr. Henry B. Sands; Dr. Markoe assuming the title of Professor of the Principles of Surgery, and Dr. Sands the title of Professor of the Practice of Surgery.

Dr. Thomas T. Sabine, lately Adjunct Professor of Anatomy, has been appointed Professor of Anatomy.

Drs. T. Gaillard Thomas and James W. McLane, lately Professor and Adjunct Professor, respectively, of Obstetrics and the Diseases of Women and Children, have assumed the titles, Dr. Thomas, of Professor of Gynæcology, and Dr. McLane, of Professor of Obstetrics and the Diseases of Children.

Dr. Charles Kelsey has resigned as Assistant Demonstrator of Anatomy and Dr. Wm. T. Bull has been appointed in his place.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

THE SIGNS AND PHENOMENA OF DEATH.

TWO LECTURES DELIVERED IN THE AUXILIARY MEDICAL COURSE.

BY

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LECTURE II.

(Reported for THE HOSPITAL GAZETTE.)

This brings us to a consideration of the eighth sign of death, viz. :

VIII.—Putrefaction.—This may be considered as the most unequivocal evidence of death. By putrefaction is meant those chemical changes undergone spontaneously in dead animal matter, resulting in the elimination of fetid gases. The period after death when putrefaction commences varies greatly, being dependent upon several conditions, some of which are inherent in the body itself, and others extraneous to the body. Among those conditions dependent on the body are :

CONDITIONS AFFECTING PUTREFACTION.

(1) *Corpulence*—Fat and lymphatic bodies decompose sooner than lean ones. (2) *Age and sex*—The bodies of new-born children and those of women dying in child-bed (according to Casper) undergo putrefaction sooner than those of the aged, probably because of the larger amount of fluids in the former. (3) *The manner of death*—After death from an exhausting disease, especially if the vitality of the blood has been impaired ; also after death from certain poisons, and especially poisonous gases, as coal gas and sulphuretted hydrogen ; also from suffocation by smoke, putrefaction of the body is accelerated. The same is true of bodies that have been much bruised or mangled ; but we must except those cases in which the body remains protected from the air, as when buried beneath ruins, etc. On the other hand, the process is retarded in death from alcohol, phosphorus, sulphuric acid, arsenic, and some other poisons. It is also generally slower when death has occurred suddenly in persons (not plethoric) in previous good health.

The external conditions affecting putrefaction are *air, moisture, and temperature*. The influence of the atmosphere upon the decomposition of an animal body is well understood. It is doubtless the oxygen of the air that is the real decomposing agent, since flesh may be preserved in nitrogen—the other element of the atmosphere—for a long period. Moreover, it is necessary that the oxygen should be in a *free* state, as it exists in the atmosphere ; it will not act as a decomposing agent if in a state of chemical combination, as in carbonic acid and nitrous or nitric oxide. The influence of atmospheric air is

not limited to the mere supply of oxygen, but it modifies putrefaction according to the amount of moisture it contains. Dry air retards decomposition by favoring evaporation, whilst moist air accelerates the process for an opposite reason. A familiar illustration of the effect of the absence of the air in arresting putrefaction is afforded in the preservation of fresh meats in hermetically sealed cans, from which the air is excluded. The same result is to a great degree secured to a dead body when it is enclosed in a leaden coffin and then sealed up in a stone sarcophagus, as in the burial of royal personages. On opening such tombs, even hundreds of years after burial, the body has been found in a remarkable state of preservation. On the other hand, bodies buried naked, or but slightly clothed, and contained in pine coffins, which easily rot, decompose very speedily on account of the ready access of atmospheric air. The nature of the soil and the depth of the grave also materially influence this process, a loose, sandy soil and a shallow grave favoring it by the ready admission of air, whilst one of a stiff, clayey nature and a deep grave would retard it for the opposite reason.

The effect of *moisture* as an agent in animal putrefaction is to favor solution. The different tissues and organs of the body undergo decomposition just in proportion to the quantity of fluids they contain. In this respect the brain and the eye contrast strongly with the teeth and bones. The human body contains nine-tenths of its whole weight in fluids ; hence its great tendency to putrefaction after death. The bodies of drowned persons decompose very rapidly in the water, except this be very cold ; in the latter case the low temperature acts as a preservative. If an animal body be deprived of its fluids by evaporation, as in drying, putrefaction is arrested ; hence the bodies of persons perishing in the burning sands of the desert remain for an indefinite time in a state of desiccation in consequence of the loss of their moisture.

The influence of *temperature* : The putrefactive process advances most rapidly in a temperature between 70° and 100° F. It commences as low as 50°, but it is completely arrested at 32°. Hence a dead body may be preserved for an indefinite period if frozen in snow or ice. The body of a Russian prince, who had been buried in the frozen soil of Siberia, on being exhumed after a period of ninety-two years, was found in a state of almost perfect preservation. At a temperature of 212° putrefaction is likewise arrested. The reason of this, doubtless, is that the fluids are rapidly removed by evaporation, and the tissues speedily become dried and coagulated. This process of desiccation is well illustrated in the mummies of Egypt and adjacent countries. The effect of temperature in the process of putrefaction is familiarly shown in the influence of the seasons. Thus, in summer a body will undergo decomposition very much sooner than in winter—a circumstance that should not be forgotten when giving an opinion respecting the date of death in an unknown case. According to Prof. Casper, the relative rapidity of decomposition in bodies exposed to the air, kept in water (cold), and buried in the earth, is in the ratio of one, two, and eight ; that is, it advances as rapidly in one week in

the air as in two weeks in the water, and in eight weeks in the earth (average).

The following is the order generally observed externally in the progress of putrefaction of bodies exposed in the open air. In one to three days in summer (three to six in winter); there first appears a greenish or yellowish green discoloration over the abdomen, accompanied with the peculiar odor of putrefaction. The eye-ball becomes soft and yielding within the same period. In a few days more, the greenish discoloration has advanced generally over the whole body, first in spots, which subsequently gradually coalesce. Dirty red streaks now show themselves, marking the course of the blood vessels. The epidermis begins to loosen in ten to fifteen days (in warm weather), forming blebs, or blisters, containing fluid. Gases now begin to form, and swell up the body. The chest and abdomen become prominent, the eye-balls protrude (one or both), the face is swollen, the features become bloated and distorted so as not to be recognized. In two or three weeks (in summer), the blebs of the cuticle may burst open; maggots appear; the formation of gases increases, so that the body is enormously swollen. If it be now punctured, the gas which is emitted will frequently take fire on the approach of a light (carburetted hydrogen.) The nails now loosen; and in the further progress of decomposition the cavities burst open and discharge their contents, the softened flesh dissolves from the bones, which now become exposed, and ultimately fall apart from the skeleton; the sexes cease to be distinguishable, except perhaps, by the discovery of a uterus, which appears to be the very last organ to yield to putrefaction.

The above description is only a very general and average one, since the process of decomposition of the body is so very variable, and is influenced by circumstances, all of which are not yet fully understood.

SAPONIFICATION, OR THE PRODUCTION OF ADIPOCERE.

It sometimes happens in the course of the putrefaction of the body that the process is interfered with under peculiar circumstances, a new condition arising known as saponification of the body, or the production of adipocere. This condition was first noticed by Fourcroy, a French chemist who discovered, during the removal of remains from one of the public cemeteries of Paris, that a great number of the bodies, instead of decomposing, had undergone a remarkable change into a new substance, which he styled *adipocere*, from its resemblance to a combination of wax and fat.

This adipocere has an unctuous feel, and a whitish, discolored appearance. It was Chevreul who first made out its composition, and found it to be in fact an ammoniacal soap—the stearate and oleate of ammonium. In the course of putrefaction the fatty acids of the body unite with the base ammonia, which is a result of decomposition.

What, you will no doubt ask, are the conditions under which the ordinary process of decomposition is arrested? Saponification only occurs in those bodies which have been buried in a wet or moist soil. Where the body has been interred in a loose

or sandy soil, it never happens. It is frequently the case that, when the grave after burial fills with water, the contained body is turned into adipocere.

The composition of this adipocere is not invariably the same. Its base may be formed by either ammonium or lime. The lime takes the place of ammonium as a base, where the saponified substance remains for any length of time in water containing any salt of lime. This was determined experimentally by Orfila, who placed adipocere (a stearate and oleate of ammonium) in a solution of sulphate of lime; he found, after awhile, that it had been changed into the oleate and stearate of lime. Adipocere, as I just told you, has an unctuous feel, resembling spermacetti very closely in consistency, is insoluble in water, takes fire, and burns at a temperature of about 212° , emitting a greasy smell; it contains a coloring matter and an odorous and a bitter principle. Its odor is very much like that of musty cheese.

It is then, a well authenticated fact that if a body remain immersed in water for any length of time, it is very likely to be turned into adipocere. What is the time required for the formation of adipocere? Divergie found that in the case of a newly born child, it was not infrequently more or less changed into adipocere after remaining in the water four or five weeks. Now you can easily perceive the value of this knowledge, since the bodies of their newborn babes are not infrequently thrown into cess-pools, etc., by their unnatural mothers. If such a body be found with the process but just begun, you may know that it cannot have been long in the water. A body in water may become entirely changed into adipocere in the course of a year. When a body has been buried in a grave in wet ground, the process may not be completed before the end of two or even three years. Of course, a body turned into adipocere is very heavy. Some ten or twelve years ago, I examined a very perfect specimen of an adipoceros body, removed from an old and wet graveyard.

MUMMIFICATION.

Another way in which the process of decomposition may be interfered with is known as mummification. In this process there is complete desiccation, or drying of the body. A mummified body is the result either of burial in an arid and sandy soil, such as those of Egypt and Arabia, or of the exposure of the body after death to a constantly cold and dry atmosphere: where, for instance, a body is placed in a vault through which a constant stream of dry air is pouring.

At the Hospice St. Bernard, in Switzerland, there is a charnel house, in which the bodies of those who have perished in the snow are placed. The atmosphere there is so perfectly cold and dry, that the flesh and fats of the body all dry up completely. It is utterly impossible to say how long a time has elapsed since death in the case of a mummy. Some of the mummies in Egypt are between two and three thousand years old.

THE ORDER IN WHICH THE INTERNAL ORGANS OF THE BODY DECOMPOSE.

The time at which death has taken place may be determined approximately by the progress which

decomposition has made among the internal organs at the time of inspection.

I do not suppose that any of you have an idea of what really is the first of the internal organs to decompose. No one would say that it was the *mucous membrane of the trachea and larynx*, and yet such is the case. After all deaths, except those from suffocation and acute laryngitis (in which it is injected) the mucous membrane of the wind-pipe is very pale. As soon, however, as decomposition sets in, *i. e.*, as soon as that green spot to which I have already called your attention appears on the abdomen, the mucous membrane of this tube assumes a dirty red appearance. That this is not the result of injection is proved by the microscope. Very soon after this stage of redness it becomes of a green color, the rings become disarticulated and it all falls to pieces.

The next organ (2) to decompose is the *brain of children under one year of age*. The reason of this lies, of course, in the fact that this organ at such an age, is so delicate and so little protected from the outer air. When decomposing it changes into a soft, rosy, pulpaceous mass, and flows away out of the smallest opening.

Then comes (3) the *stomach*. This putrifies very soon after death. The decomposition of this organ first shows itself in discoloration of the fundus, together with the formation of dirty red spots in the posterior portion of the fundus, owing to hypostatic congestion. These spots soon ramify and cover the whole mucous membrane. Beware how you mistake these red spots for the evidence of poisoning or inflammation. They are not such, and it is impossible to distinguish between them and the true evidences of these facts. A post-mortem redness of the mucous membrane of the stomach does not by any means always prove a case of poisoning. In decomposing the stomach softens—the spots turning first grey and then black, with dark colored streaks (veins) running through them. Then it all sinks into a pulpaceous mass.

After the stomach we find (4) the *bowels* putrifying. They burst and spill their contents, the mass imparting to the hand a greasy sensation, then go through the same phases of discoloration as the stomach.

The *spleen* (5) is next in order. It is a rather soft organ, but if not diseased when death occurs it will retain its integrity for from two to three weeks. It grows first dark, then greenish blue, and then soft and pulpy, so that its substance can be rubbed down with the handle of your knife.

Following the spleen 6 the *omentum and mesentery* decay. If there is not much fat connected with them it will very rapidly dry up and disappear.

The *liver* (7) you would suppose to be among the earliest to yield, but the truth is that it strenuously resists the putrefactive influences for a long while. In adults it remains intact for several weeks. In infants it decomposes sooner. It grows first green, then black, shrivels and softens.

The *brain* (8) in the adult does not begin to show signs of decay until the end of the fourth or fifth week. When decomposition does set it begins at the base of the brain, which softens and becomes bluish green. This softening process moves up to

the vault, and then makes its way inwards. If the brain has been wounded by depressed bone or by a gun-shot wound it is affected earlier.

Then comes (9) the *heart*, one of the toughest of all the organs. The softening here begins in the columnæ carniæ and goes from them to the walls of the organ, which finally sinks into an unrecognizable mass.

It is remarkable that (10) the *lungs*, which are such soft organs and so nearly connected with the outer air should last so long. Decomposition here first renders itself visible in the formation of little blebs or bladders of air in the sulci, between the lobes and lobules, looking like a string of beads. These increase rapidly, the lungstructure turning first green, then black.

The 11 *kidneys* follow the lungs; they become reddish brown and soften, and afterwards blackish green.

The (12) *urinary bladder* is next. Then (13) the *œsophagus*; one would suppose that this would be among the first to decompose. The (14) *pancreas*, though so near the stomach, does not putrefy till late. The (15) *diaphragm* shows green spots on its borders soon after death, but resists the further process of decay for many weeks.

The next in order to yield are (16) the *arteries*; the aorta still retaining its shape, when everything else in the neighborhood has fallen into one shapeless mass. Last of all, according to Casper, comes (17) the *uterus*, which has been found to retain its shape at the end of seven months after death. This fact is very useful where any question arises of the possibility of pregnancy.

AGENTS WHICH RETARD AND WHICH HASTEN DECAY.

You all know that disinfectants retard putrefaction. Strong acids and alkalies, although they do not hasten decomposition, promote dissolution. Some of you have heard, no doubt, of the celebrated Parkman-Webster case in Boston, which occurred some thirty years ago, in which Dr. Webster, the professor of chemistry in Harvard College, after killing Dr. Parkman wished to dispose of his body, and so cut it up into small bits, and then tried to dissolve these remnants with his chemicals.

It has been a popular belief for many years that lime accelerates putrefaction, but it does, in fact, the very opposite. That it does prevent putrefaction has been very clearly demonstrated by Dr. John Davy and others. A piece of raw meat which has been first sprinkled with lime and then buried, will last much longer than it otherwise would.

THE APPEARANCE OF THE DEAD BODY AS A MEANS OF DETERMINING THE LENGTH OF TIME WHICH HAS ELAPSED SINCE DEATH.

How are we to determine how long a man or woman has been dead. What inferences can we draw from the foregoing? We may draw inferences from, first, the signs occurring before, and second, the signs occurring after putrefaction.

Here is a dead body. Suppose you find it in the following condition—it is but very slightly cold and only the least rigid, the rigidity showing itself only about the jaw. The eyes are glazed and the eyeballs are sunken. The man has been dead *from a*

few minutes to six hours. (Our inferences can only be approximate and never exact.)

Suppose the whole body is cold, *i. e.*, externally, of course, and that rigidity has been well established throughout the body. The person has been dead for from one-half a day to four days.

If rigidity is complete all over the body and signs of *sugillation* appear in the shape of green spots, death has occurred within from one to five days.

A number of years ago a man in London was convicted and transported for cutting his wife's throat. The woman was found with her throat cut at eight o'clock A. M. She was very rigid throughout the upper part of her body, and the whole body was cold. The prisoner was able to prove an alibi between the hours of 4 A. M. and 8 A. M., and his counsel endeavored to prove that post mortem coldness and partial rigidity might have developed *within* four hours. This point was overruled, however, by the mass of medical testimony to the contrary.

Suppose that when you are called to see a body, putrefaction has begun in the shape of the green spot over the abdomen; that rigidity has passed away and that the body is cold, but pliant. Such a body must have been dead for from one to three days in Summer, and from six to eight days in Winter.

If the body, when seen, has greenish brown stains all over it and the sphincter ani is relaxed, it must have been dead from eight to ten days in Summer and from ten to twenty days in Winter.

If blebs are found over the skin and maggots in the muscles, if the body is green all over and the abdomen is enormously distended, if the nails are loose and fall out easily, and the color of the eyes is not recognizable, the body has lain from two to three weeks in summer, or from four to five weeks in winter.

If the chest and abdomen have burst open and discharged their contents, and some of the bones are denuded of their fleshy coverings, and if the eyes are enormously swollen, the body must have been dead for from two to four months.

I want particularly to put you on your guard against giving a premature opinion in these matters. We can at best only conjecture, founding our opinions upon the amount of decomposition, which is, in fact, a very variable quantity. Bury a number of bodies in the same soil, at the same depth, and with the same number of grave clothes, and when you come to disinter them you find that they are all probably in different stages of decay. In some of them perhaps the process of decomposition may have been stopped.

Orfila, the greatest authority upon these matters, affirms that we cannot do more than conjecture. The depth of the grave and the length of time which has elapsed before burial have much to do with the subsequent state of the body. A body which has been buried in a deep grave before the process of decay has set in is preserved much longer than one which has been buried in a shallow grave, after decomposition has already set in. Particularly is this so if the first body was buried in cold, and the second in warm weather.

Besides those "signs of death" which I have described and illustrated, there are some few others of

less importance and certainty, but which I will not now occupy your time in detailing.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY

JOHN A. WYETH, M.D.

EXTIRPATION OF SUBSTERNAL GOITRE.—E. ROSE.

Patient, countryman, æt. 22, 4 years previous had first noticed a swelling in the throat which had increased until it was as large as an apple and interfered so seriously with respiration that its removal became necessary. The tumor extended so far behind the sternum that not only the trachea but the great vessels were exposed and the finger pushed into the bottom of the wound rested upon the arch of the aorta, between the innominate and left carotid. 52 ligatures were applied. One secondary hemorrhage followed—wound treated openly—Recovery complete.—*Ibid.* p. 94.

ELASTIC ADHESIVE DRESSINGS.—DR. M. VOGEL.

In order to close wounds of the soft parts, more especially superficial wounds, where the presence of sutures would increase inflammation, Dr. V. uses strong male skin adhesive plaster. Along the edges of the two pieces which are cut as long as the wound, are arranged a series of little buttons, a half inch removed from each other. The plaster extending laterally far enough to catch a firm hold on the integument, is applied warm, the contiguous edges being about one-half or three-fourth inches removed from the edges of the wound. An elastic cord is then "zigzagged" across like a corset string, making the needed judicious traction.

The buttons have a rounded head like a small shot, a short neck, which sets into a flattened, rounded plate, about one-fourth inch in diameter. The holes are punched through the plaster about one-half inch from the edge, which is to be parallel with the wound. The small end of the buttons is pushed through this hole and the plaster is then turned under between the skin and the broad base of the button, which is firmly held between the two adhering surfaces of the plaster. Hooks may be sewed on and would answer the same purpose.—*Centralblatt für Chirurgie, March 1, 1879, p. 129.*

ELEPHANTIASIS ON THE ISLAND OF SAMOA.—KÖNIGER.

This disease is the prevailing epidemic on this island; fifty per cent. of the native population being more or less attacked in the course of their lives. In marshy localities it prevails most seriously. While both sexes are equally attacked, the labia and mammae are not so often the seat of the disease as the scrotum. The cause is supposed to be malarious. Quinia, arsenic, change of climate, is the treatment. Turner has operated 75 times for removal of these growths, one tumor weighing 80 lbs. Only one death, and this from diarrhoea ten days after operation.—*Ibid.* March 8, 1879, p. 156.

THE HOSPITAL GAZETTE,

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and the Collateral Sciences.

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EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

The greater portion of this number of the *GAZETTE* is occupied by a report of the proceedings of the American Medical Association. The meeting being held so far south, was not as well attended as have been the meetings of the Association for the past few years, but notwithstanding this, the papers read were all interesting, and withall, we think the meeting was as much of a success as any we remember. As is always the case, the matter of interest at these meetings is the election of the President. This year the choice of the association fell upon Dr. Lewis A. Sayre, who needs no introduction to our readers. That he will make an efficient officer we doubt not, and we must deprecate the extravagant assertions of some of our contemporaries as to the disgrace brought upon the association by Dr. Sayre's election and the prediction of its early downfall in consequence thereof. Our antagonism to Dr. Sayre has not at any time been of a personal nature. We have questioned and criticized his views and practices, and shall continue to do so as long as they are objectionable. We would have been the last to urge Dr. Sayre's name for nomination, but now that he has been elected, we accept the situation, and think we cannot do better than quote the words of the *Louisville Med. News*, which says: "We need have no fears that all sides will not be presented and a proper balance struck between traumatic and strumous hip-diseases, and that short femurs will prevail even though the new president says they shall not. So also may we know that mild manners shall not perish from the earth."

THIRTIETH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The thirtieth annual meeting of the American Medical Association was held at Atlanta, Ga., on May 6th, 7th, 8th and 9th, 1879.

Promptly at 11 o'clock the meeting was called to order by the President, Dr. Parvin. Prayer was offered by Rev. Dr. Gwinn, after which Dr. Logan delivered the following address of welcome:

Mr. President and Members of the American Medical Association: In accordance with the appointment at your meeting in Buffalo in 1878, it becomes my honor to receive you; and, in conformity with custom and propriety, and in behalf of the medical profession and people of this city, it is my pleasant duty to greet you with a few words of welcome at this hour.

In glancing over some of the volumes of the transactions of this body, a few days ago, with a view of determining the character of the address which, as your chairman of the committee of arrangements, would be appropriate to this occasion, I confess that my heart failed me when I read the long catalogue of attractions of various cities, as presented by my predecessors in this position. The grandeur and beauty of nature by which a number are surrounded, the vast proportions of others, the works of art and science and benevolence which are conspicuous features of many of them, the evidences of a profuse display of elegant and refined hospitality exhibited by all, were not calculated to give me confidence in alluding to the advantages of this town until I recalled the remark of somebody, supposed to be good authority, that as no individual was able to give any sufficient reason why Atlanta should have attained its present dimensions and importance, so no one could prove that it was not possible that in the future she might become as large as London.

Like any true citizen of this presuming town I then took heart and determined to welcome you boldly to a city of great possibilities. Not many years ago Atlanta was simply a railroad terminus, but under some mysterious influence, already alluded to, it had grown up at the time of the late war to a smart little town of some twelve or fifteen thousand inhabitants; but with the desolations of that period it was literally burned up, and scarcely one stone was left upon another; but yet, as under the power of some magic wand, it has sprung in little more than a decade, into a city of forty thousand people, and to-day, in all the substantial elements of a city, is increasing in importance, in fully as rapid a ratio as at any period of her history.

We have not, however, my friends, sat down in ignoble lamentations over our misfortunes, but have gone to work with energy and determination to rebuild and make better our desolated places, and yet with all the presumption and mystery which has surrounded our history, something of our progress must be attributed to the fact that at an early period after the war between the States, Atlanta as the terminus of a number of arteries of trade and travel, became the capital of a State, great in all the natural, if but partially developed resources which go to make up an empire, as exhibited in her vast surface of fertile and kindly soil, with its varied productions of cotton, corn, wheat, rice, sugar and luscious fruits, her illimitable water power, her extensive mineral deposits of iron, copper and gold, her bays and rivers teeming with fish and oysters, and in a large portion of her territory and especially

in the elevated region in which Atlanta is found, a perfection of climate and salubrity throughout the year, not to be found in my judgment (after years of investigation) anywhere else within the broad area of this union.

Something must also be due to the character of the people of Georgia, as it is their pride to be progressive, and in this respect Atlanta perhaps more decidedly typically represents and vigorously embodies the spirit of our growing commonwealth, than any of her many thriving cities. Forgetting the things that are behind and looking forward to those that are before, whatever is connected with the advancement of a practical civilization, interests the citizens of this State as a people, whether it be the reform of statesmanship, the inventions of mechanical genius, the operation of great charities, the beneficent ministrations of religion, the regulation of comprehensive details of commercial traffic, the wise solution of the mighty problems of railway transportation or the baffling mysteries of medical science in the unselfish mission of relieving human suffering, there is an intelligent interest and a zealous co-operation that have become to be State characteristics.

Atlanta has given evidences that she is not behind the balance of our commonwealth in this spirit of sympathy with every form and phase of moral, social, and scientific advancement. And it is a practical recognition of this spirit that she has been honored by the presence of so many conventions, representing the talent of the nation, engaged in the grandest missions of human intellect and human philanthropy. Great gatherings not only of national, but international scope, she has been delighted to entertain. In the last few years conventions of railroad magnates, religious celebrities, masonic dignitaries, commercial princes, and political leaders have been held here, and she now extends to your august body a reception that while it is fervently southern in its heartiness is also broadly catholic and national.

Let me beg you not to be precipitate in leaving us, but look into the mystery of this town, and in accordance with one of the most prominent characteristics of our people, who are always looking out for population, and as it must be supposed that we have a great deficiency of medical men, from the constant accession of our numbers, I would suggest that we may yet claim many of you as our fellow citizens.

To you as physicians it must be interesting to know that there is found an almost entire exemption from malaria and tuberculosis (originating in this region) as well as freedom from any apprehension of a visitation of the awful scourge to which so many of our southern towns have been subjected. Our gates have time and again been thrown wide open to the fleeing thousands who have found safety from pestilence, and sympathy with misfortune, the benevolence involved, it may be mixed with the selfishness that springs of a security from danger.

And this brings me to remark that if we cannot offer you much in the way of attractive recreation, we can at least point you to this favorable opportunity for the consideration of the great question of the hour, upon the wise solution of which depends

the most momentous and vital interests of health, happiness and treasure to the whole people of this vast country.

The grand results which have been accomplished in the past in originating and building up sanitary science have been due to the medical profession, and you have now in addition to the many other important and interesting investigations which demand your attention, in the impress you may make upon the action of the national sanitary body now in contemporaneous session (to which you are invited), accustomed as you are to self-sacrificing toil, an opportunity to engage in a "labor of love" and a work of mercy, far transcending the gratification of landscape, art or social life, in this solemn period, when the people of a large portion of the land, having just emerged from the ravages of the deadly plague, are now waiting, as it were on tiptoe, with deep apprehension, the approach of another season, which may renew the horrors of the past year.

As equally appropriate to the present occasion and to the intervening history of this desolating plague, craving your patience, I have to detain you a moment in repeating a brief extract from what I had the honor to write in the conclusions of a report from the state board of health to the governor and legislature of Georgia, in the winter of 1876, in reference to the visitation of that year upon our own immediate coast and connecting cities. I then said, and now say with equal confidence, that, "For all practical purposes, it is not necessary to demonstrate whether yellow fever is always imported, or whether under certain peculiar and exceptional circumstances it arises upon our coast from local causes alone. That it can be imported, and will, or can become epidemic from the neglect of proper sanitary regulations in certain localities, will not be questioned. That it may be imported and not become epidemic in the absence of the circumstances which favor its propagation will also be admitted without discussion. The very warm contest, therefore, which has been carried on for many years in regard to the exotic or local causes of yellow fever does not seem to be justified by the necessities of the case, or the importance of arriving at conclusions of a definite character with reference to the possibility of excluding it altogether, as an epidemic, from our shores. Let the facts of importation or local origin, or of both, be as they may, no argument is needed to establish the proposition that no means of preventing the occurrence of yellow fever should be neglected, which could, by possibility, be brought into requisition.

The value of a properly regulated system of quarantine cannot be successfully controverted. The value of an enlightened and thorough system of internal sanitary regulations cannot be estimated. In both points of view, the facts developed in regard to the recent epidemic of yellow fever upon our coast is a sad commentary upon the wisdom and fidelity of both state and local authorities." Not being a statesman and this not being the time or the occasion to discuss the question of federal or state jurisdiction, which has excited some controversy of late, I will still venture to say that if those states through whose borders the fell destroyer makes his incursions, continue to be insensible to the lamentations of

widows and orphans, and the wreck of homes and fortune, I for one, would gladly welcome the intervention of the paternal care of the general government in the effort to save the lives of the people, even though it be at the expense of a cherished political idea. The principles announced can, I conceive, provoke no heated discussion among enlightened and philanthropic men, and offers a platform of efficiency, in my judgment, broad enough and conservative enough for all practical sanitarians to stand upon, and the high ends indicated, to the accomplishment of which your aid is invoked, opens up a problem of life and death, of science, philanthropy and art, enough for any heart and brain.

Your annual convocations running back for thirty years, have constantly illustrated the progress of medical science, in all its departments, and you have held no more important meeting than the present. Our people give you a greeting commensurate with your grand mission and august character.

We are authorized therefore to cherish the hope that your deliberations and kindly intercourse at this session of your body will result in lasting consequences, destined to elevate medical science to a still higher level and to increase public confidence in the claims of that dignified and humane calling, whose skilful and charitable contributions are so urgently demanded by the whole human family, from infancy to old age.

And now in conclusion, I am sure that I can safely predict that the interests excited and the friendships formed here will be the last to be forgotten. What we lack in interest we hope to make up by the heartiness with which we offer that we have.

Then, gentlemen of the American Medical Association, in the name of our people and the medical profession in this city I again extend to you a thrice reiterated welcome to our state, our city, our homes and our hearts.

At the conclusion of the address the announcement of the list of registration of members by the committee on arrangements was made and the list of members was read by the secretary.

Protests against the registration of certain delegates were announced from Arkansas, Indiana and West Virginia.

On motion of Dr. Davis of Chicago, the recommendations of the committee on arrangements on matter of visiting and permanent members were adopted.

Communications from absent members were next read, after which the President delivered his address. It was characterized throughout by the ability which has always distinguished the productions of Dr. Parvin.

In alluding to the late epidemic of yellow fever, Dr. Parvin remarked:—

Since we last met together, less than a year ago, hundreds of our profession have fallen victims to the pestilence that walked in darkness and wasted at noonday in so many of the cities of the south. Some of those who thus fell in their efforts to save their fellow beings from swift death, were in the meridian of their powers and of professional success. Others were in the fair morning, with the promise of long years and the hope of high honors. Can we believe that these heroic men live only in

the memory of their friends? From all the martyr-memories of noble men and women, in every age, who counted not their lives dear unto them when principle was at stake, or in sublime self-abnegation sacrificed their lives for kindred, for country, for humanity, there comes a solemn protest against denial of life beyond the grave.

Accepting gratefully all the facts of science, let us beware of rejecting everything that may not be capable of mathematical demonstration, and compelling our assent to absolute necessity. There may be truths more important, but less open; whisperings of hope that are sure promise of fruition. The poet tells of the sea-shell when, its polished lips shaken and applied to your attentive ear:

"And it remembers its august abodes,
And murmurs as the ocean murmured there."

So we may hear the deep but distant murmur of the immortal sea as it beats against the shores of time, ready to bear upon its mighty bosom the children of men from life to life, and the law of continuity be found as true of the spiritual as it is of the material world.

Happy for us, though unlike the Thrianmo, we hold no festivities over the dead, if with something of the glad dream of hope, if not in the glory of triumph, we can adopt the familiar words of our great American poet:

"There is no death! what seems so is transition;
This life of mortal breath
Is but a suburb of the life elysium
Whose portal we call death."

Dr. Brodie, of Detroit, moved that the convention return its thanks to Dr. Parvin for his eloquent address, and that a copy of it be requested for publication. The entire association rose in answer to this request amid loud applause.

On motion of Dr. Logan, the ex-presidents of the association were invited to seats on the stage. In response, Dr. Davis of Chicago, Dr. Gross, of Philadelphia, Dr. Richardson, of New Orleans, and Dr. Toner, of Washington, came forward and took seats on the stage. Dr. Fuller, of Maine, presided during this stage of proceedings.

Some papers on various medical problems and experiments were offered and referred to appropriate sections.

Dr. E. Sequin, of New York, presented the report of the committee on the metric system. The report briefly sketched the success of the system and offered in conclusion a resolution declaring that the association adopt the metric system, and that in future all correspondents adopt it, and that druggists and physicians endorse and promote its popular use. The adoption of the report and resolutions was moved.

Some discussion was had as to whether the resolutions should be adopted at once or delayed until some absent members should come in. The motion to postpone the consideration of the report was carried.

An amendment to the constitution providing for the consolidation of the sections on medical jurisprudence, chemistry and psychology and the department of state medicine and public hygiene was adopted. The section was placed as number four.

Several inquiries as to eligibility of members to seats in the association were referred to the judiciary counsel.

Dr. Keller offered an amendment that the committee on nominations be restricted to present members.

Dr. Davis rose to a point of order that the amendments were not in order the first day. The point was ruled well taken and the convention adjourned.

SECOND DAY'S PROCEEDINGS.

The association reconvened at 9½ o'clock, and was called to order by Vice-President Murphy. Communications from the committee on arrangements were in order and several announcements were made.

A communication against the abolition of the duty on quinine created some sensation. There were cries of, No! No!

The communication was tabled, and on motion of Dr. Roberts, of Nashville, the association reiterated its request that Congress remove the duty from quinine. There were some nays but the ayes had it. The next business was the address of Dr. Thomas F. Rochester, of Buffalo, N. Y., chairman of the section on the practice of medicine. The paper was a very able and exhaustive discussion of yellow fever, a subject whose importance cannot well be exaggerated. The author's style was so clear, his research so large and his thoughts so fresh that the paper he offered will rank among the best of the long list which will come up at this session. Dr. Atkinson, of Philadelphia, moved that the address just read be referred to its appropriate section of practical medicine.

An amendment that portions of the paper referring to typhoid and yellow fevers be referred to the section on state medicine was lost.

The original motion was adopted.

An address by Dr. John S. Billings, of Washington, was next in order, but President Parvin stated with regret, that Dr. Billings was too unwell to read his own paper, but that it would be presented by Dr. J. J. Woodward, of the United States army. The paper was on state medicine. It was a masterly treatment of a subject whose importance is just beginning to loom before the public. It explained fully the philosophy of the national board of health, and as it came from one of its leading members was heard with great interest. The necessity for a national quarantine and its advantages were fully expounded.

The paper was referred to the section on state medicine and a copy asked for publication.

Dr. N. S. Davis, of Chicago, made a report from a special committee on questions discussed by President T. G. Richardson in his annual address of last year, which was received. They favored the amendments proposed for the present rules on prize essays. They recommended the expunging from section 3 all relating to prize essays and to insert a clause declaring that there shall be four prizes of \$250 for the best original contributions to medical knowledge. The chairman of the sections on practical medicine, on obstetrics, and surgery and anatomy, on state medicine, shall take charge of the competition and arrange its methods. The re-

port was to lie over for action until next year under the rule.

It was received and the committee discharged.

The next business was the consideration of proposed plans of change in the plan of organization. The first was an amendment declaring that the committee on nominations should hereafter select the nominees only from those members of the association present.

A motion to table this amendment was made.

The president stated that only delegates were voters. Permanent members and visiting members are not voters. A rising vote was called for. The yeas on the motion to table were 120, and the nays 5.

Dr. H. O. Hitchcock offered an amendment prescribing the method in which the choice of officers should be made and enlarging the scope of nominating powers of the committee.

Dr. Reynolds, of Louisville, said the amendment implied an imputation on the fairness of the previous methods of the association, and it was tabled.

An amendment by Dr. Caldwell, of Maryland, to create a new section, was tabled. An amendment offered by Dr. Maddox to create a new section on genital and urinary organs was read. A motion to table it was made and a rising vote on it asked. The yeas were 73 and nays 78. The amendment then came up for discussion. Dr. Davis said there was danger of making many sections which would not attract enough attention to make them interesting. But two sections had been consolidated yesterday, and he favored the trial of the new section proposed. If it did not work well it could easily be discontinued. He did not like the idea of some men in going about from section to section to try and imbibe all without imparting anything.

Dr. Brown, of Texas, said the sections had too many long papers and were not made as interesting or as useful as they might be.

It was moved that the amendment be referred to the section on surgery, with request that it report to the association to-day. Agreed to.

Dr. N. S. Davis, of Chicago, offered an amendment to the code of ethics, declaring it to be against the ethics of the profession for any physician to teach or encourage any student of an irregular or exclusive system of medicine.

Dr. E. S. Dunster, of Ann Arbor, spoke in opposition to the amendment. He said he had no personal motive in opposing it or by any desire to shelter himself from the responsibility of any past teaching. He said he wished to remain in the association, but not even membership would be a fitting price for the abandonment of scientific convictions. He feared the amendment would bring dishonor and disaster on the profession. The code says medicine is a liberal profession, but this amendment makes it close and exclusive. The whole spirit of the amendment is opposed to the broad principles of true science. He attacked the amendment on various grounds. Said it was impossible to enforce such a statute. It would be a dead-letter law, a reproach to the wisdom of the body that enacted it. A thorough enforcement of this law would close every clinic in the land. In nearly every clinic in large cities are found homœopathic students. He said in the lead-

ing homœopathic colleges text books by leading allopaths are freely used. This is teaching the students of an "irregular" system, as it is called, and you can't help it. Legally, the amendment will be futile. If the student of an irregular system, as it is called, were to apply to a state school and be refused, he could obtain a mandamus in any state of this union to give him an entrance and provide him tuition. What is the use of setting up limitations which cannot be carried out? He argued also on the merits of the question. It is based on an assumption of a most fallacious character. It assumes that the teaching of the students of irregular systems will tend to build up these systems. This is folly. It declares that the teachings of science lead to error—a proposition which no man in his senses will give his endorsement. Such a principle carried out would prevent a minister of Christ from preaching the gospel when there were atheists or sinners in his congregation. History has to-night nothing plainer than that truth is the antidote and finally the victor of error. The argument was not only masterly in its logic, but was marked throughout by a liberality of view which is the honor of a true scientific man. Said he: "If national medicine cannot triumph in such a contest she deserves to fall and be buried in dishonor." The address caused a sensation in the association.

Dr. Dudley Reynolds moved to lay the amendment on the table, as he said the amendment had been killed.

A member appealed for free discussion on both sides. A voice: "The gentleman who moved to table the motion, only a moment ago, was for free discussion." The motion to table was withdrawn.

Dr. Davis said he did not wish to discuss the matter, but he would state the reasons which led to the report which proposed the amendment. The association had taken the steps which made the amendment a necessary result of its action. The judicial council, as a committee, was ordered to report just such a clause. The amendment was the best that could be done. It did not follow that the committee favored the amendment. He said it would be repugnant to him to teach students of an irregular college who merely came in to catch what they could of his teaching. He admitted that there was a line beyond which the code of ethics could not be carried without coming in contact with state and municipal laws. Doctor Davis's remarks were sound and fell upon attentive ears.

Some announcements relative to the excursion to Augusta, which leaves Atlanta Friday afternoon at 6 o'clock, were made.

Doctor Pratt said the argument against the amendment was specious; it was the argument of those who wanted to make money by teaching irregular pupils and be considered ethical while practitioners are considered nonethical if they associate with such pupils after they become practitioners. He moved that the proposed amendment lie on the table until next year.

Dr. Brodie, of Detroit, moved to lay that motion on the table. The vote was taken by rising. The yeas were 72 and the nays 122, so Dr. Brodie's motion was lost. The announcement was received

with applause. The motion to table till next year was carried.

The roll of states was called for the purpose of allowing delegations to choose places where they would meet to choose members of nominating committee.

After this was done the association adjourned.

THIRD DAY'S PROCEEDINGS.

After the convention was called to order by President Parvin, the secretary read the several announcements and communications found upon his table—These having been appropriately referred, the regular reports were next in order. A carefully prepared report on ozone, was read by Dr. N. S. Davis of Illinois, which, upon motion was ordered into possession of the committee on publication.

Dr. J. M. Toner, of Washington, formerly president of the association, presented a lengthy report on Necrology, including in the roll of honor the names of all physicians who fell in battling the yellow fever scourge last year, whether members or not. We omit the eloquent remarks of the report, and present the names; the cause in which they lost their lives speaks more eloquently.

Alexander, F. V. P., Greenville, Miss.; Armstrong, J. W., Memphis, Tenn.; Anderson, J. M., Hickman, Ky.; Avent, B. Ward, Memphis, Tenn.; Baird, E. M., Chattanooga, Tenn.; Ball, C. W., Grand Junction, Tenn.; Bankson, J. S., Memphis, Tenn.; Barnes, Thos. P., Hickman, Ky.; Barr, Robt. N., Chattanooga, Tenn.; Bartholomew, O. D., Memphis, Tenn.; Birdsong, J., Vicksburg, Miss.; Blackburn M., Vicksburg, Miss.; Beatty, J. H., Grand Junction, Tenn.; Blackman, M. C., Vicksburg, Miss.; Blanton, C., Hickman, Ky.; Boaz, C. F., Fulton, Ky.; Boba, Burwell A., Memphis, Tenn.; Bond, T. W., Memphis, Tenn.; Booth, D. W., Memphis, Tenn.; Boyd, James G., Milan, Tenn.; Brodsing, Beechtree, Tenn.; Brown, R. F., Memphis, Tenn.; Burham, Robt., Memphis, Tenn.; Byrne, J. G., New Orleans, La.; A. H., Canton, Miss.; Carter, W. W., Tangapahoa, La.; Cattell, H. C., Hickman, Ky.; Chevis, Langdon A., Memphis, Tenn.; Compton, W. M.; Cone, Wm. C., Franklin, Tenn.; Cake, John L., Hickman, Ky.; Dawson, J. R., Memphis, Tenn.; Dickinson, T. M., Memphis, Tenn.; Dickson, George, Dry Grove, Miss.; Dobbins, A. M. M., Williston, Tenn.; Easley, Edward T.; Erskins, John H., Memphis, Tenn.; Ewell, A. C., Memphis, Tenn.; Farris, James W., Hickman, Tenn.; Fennel, Frank, Holly Springs, Miss.; Fennel, Wm., Holly Springs, Miss.; Fenton, Holly Springs, Miss.; Fitzgerald, P. F., Grenada, Miss.; Forbes, J. O., Memphis, Tenn.; Force, J. H., Memphis, Tenn.; Ford, E. C., Summerville, Tenn.; Gallagher, Charles, New Orleans, La.; Gardiner, A. S., Greenville, Miss.; Garvin, J. G., Williston, Tenn.; Glass, Vicksburg, Miss.; Gray, La Grange, Tenn.; Gillespie, Grenada, Miss.; Gilliland, Vicksburg, Miss.; Garrell, J. G., Memphis, Tenn.; Grigsby, J. T., Erin, Tenn.; Guntlad, Brownsville, Tenn.; Hall, W. W., Grenada, Miss.; Harris, Edward W., Summerville, Tenn.; Harlan, L. B., Memphis, Tenn.; Hawkins, Grenada, Miss.; Hayes, Vicksburg, Miss.; Heady, T., Memphis, Tenn.; Heath, Angola, La.; Herndon, Charles L. C., New Orleans, La.; Hicks, J. R., Alabama; Hill, J. S.

Moscow, Tenn.; Hobson, J. L., Summerville, Tenn.; Hodges, W. R., Memphis, Tenn.; Hopson, H. R., Memphis, Tenn.; Hunter, John, Bell's Depot, Tenn.; Hughes, E. W.; Keating, Michael T., Memphis, Tenn.; Kibbee, G. W., New Orleans, La.; Luck, S. M., Colliersville, Tenn.; Lawton, R. H., Louisville, Miss.; Lehman, Isidore, New Orleans, La.; Lewis, John, Holly Springs, Miss.; Lindley, N. A., Grand Junction, Tenn.; Lowry, Wm. A., Memphis, Tenn.; Manning, Thos. A., Holly Springs, Miss.; McCallum, C. C., Lake Station, Miss.; McKie, N. W., Canton, Miss.; May, W. B., Grenada; McCall, J. S., Greenville, Miss.; McGee, Nathan, Canton, Miss.; McGregor, Thos. H., Memphis, Tenn.; McKay, R. H., Germantown, Tenn.; McKinn, J. W., Memphis, Tenn.; McKinney, W. O., Holly Springs, Miss.; Meade, W. C., Memphis, Tenn.; Meares, T. W., Memphis, Tenn.; Menees, Thos. W., Memphis, Tenn.; Monette, W. E., Monroe, Miss.; Manning, T. D., Memphis, Tenn.; Milan, Paris, Tenn.; Milton, John L., Grenada, Miss.; Montgomery, R., Memphis, Tenn.; Montgomery, Wm., Greenville, Miss.; Morley Thos., New Orleans, La.; Newman, James C., Vicksburg, Miss.; Nesmith, W. J., Miss.; Norris, Jas. B., Vicksburg, Miss.; Nugent, B. C., Memphis, Tenn.; Peebles, B., Memphis, Tenn.; Peete, J. S., Mason, Tenn.; Parmilee, J. G., Memphis, Tenn.; Perkins, P. A., Colville, Tenn.; Potts, Vicksburg, Miss.; Powell, J. W., Hernando, Miss.; Prather, Hugh, Jordan, Ky.; Prewitt, N. H., Grand Junction, Tenn.; Reimer, J. S., Mason, Tenn.; Ringgold, R. S., Grenada, Miss.; Roach, J. S., Vicksburg, Miss.; Robbins, W. H., Bartlett, Tenn.; Robbins, H., Memphis, Tenn.; Roberts, C. S., Memphis, Tenn.; Roahe, M. A., Pattersonville, La.; Rogers, Jno. C., Memphis, Tenn.; Sample, O. F., Memphis, Tenn.; Sappington, Vicksburg, Miss.; Sen, W. J., Memphis, Tenn.; Sarver, P., Memphis, Tenn.; Shonnan, Brownsville, Tenn.; Smith, Wm. D., Smithland, La.; Spratt, W. D., Port Gibson, Miss.; St. Clair, T. C., Memphis, Tenn.; Stafford, Greenville, Miss.; Strobbridge, J. G., Port Gibson, Miss.; Swasey, H. A., Tangepahoa, Miss.; Tarry, Thos. H., Galloway, Tenn.; Tate, R. H. (colored) Memphis, Tenn.; Taylor, J. T., New Orleans, La.; Tuercke, P., Memphis, Tenn.; Trimble, Friar's Point, Miss.; Waldo, R., Cairo, Ill.; Ware, J. J., Brownsville, Tenn.; Watson, K. P., Memphis, Tenn.; Wheeler, Till, Moscow, Tenn.; White, J. S., Memphis, Tenn.; Whitehead, Peter F.; Williams, R. B., Memphis, Tenn.; White, J. M., Memphis, Tenn.; Wills, W. S., Brownsville, Tenn.; Woodruff, Z. T., Turk, Ala.; Williamson, W. B. Hinds Co., Miss.; Woodward, John D., Memphis, Tenn.; Woolfolk, G. W. Grenada, Miss.; Young, Thos., Port Gibson, Miss.; Zuissner, Wm., New Orleans, La.

Because of the absence of Dr. H. I. Bowditch of Mass., the anticipated report on consumption was necessarily postponed.

The tardy progress of Congress in relation to the National Library was reported by Dr. Wood of Pennsylvania. Gratitude was expressed for the few favors, in the hope that a fair harvest might be gleaned in the near future. Dr. Billings, in particular, was complimented for his untiring and unselfish efforts at the national capital. This report was ordered to be published.

Then came the statistical reports of the officers. Dr. Atkinson, of Philadelphia, the Secretary, presented the report of the Committee of Publication. The Treasurer's and Librarian's reports were likewise presented. No objection being made, the several reports were adopted and ordered to be printed.

The Association then listened to the paper on State Medicine, by Dr. Chaille, of New Orleans, that had been reported from the section as eminently deserving of the general attention of the profession. The paper is quite lengthy, but is so compact, while comprehensive, that nothing less than its publication in full would be justified. He suggested action by the General Government in matters of public health, yet ably cautioned against trespassing upon the reserved rights of the States. In this particular the Doctor's legal attainments show forth quite as brilliantly as his medical and other. He praised in well-meant terms the efforts of local and State Boards, but argued that the greater executive power should be centred in and exercised by the American Medical Association, the national body around which the State and local associations should revolve as satellites. Such a course would strengthen the national body, which would reflect its increased strength to the glory of the less. All would be made better, since the fountain was made stronger. The superior efficacy of the British Medical Association was instanced, bringing history to confirm theory. The paper was so able and so comprehensive, yet so peculiarly interesting to the entire profession, that we have hopes to lay it before our readers in full shortly. It certainly is destined to awaken discussion wherever it goes. The paper was referred to its proper section.

Quite an ovation was tendered Dr. Moses Gunn, of Chicago, when his paper was announced. Dr. Gunn, as Chairman of the Committee on Surgery, presented an eminently scientific dissertation on "Pus." The paper abounded in accurate recitals of cases, furnishing substantial foundation for overturning popular erroneous notions and for advancing into the foreground of progressive treatment. Ably prepared and modestly presented, the paper was received by all as one of the gems of the meeting.

Prof. S. D. Gross, of Philadelphia, then announced the readiness of the Committee on Nominations. The report was read by Dr. Eugene Grissom, of North Carolina, as follows:

President—Dr. Lewis A. Sayre, of New York.

Vice-Presidents—*First*, Dr. R. Beverly Cole, of California; *Second*, Dr. E. M. Hunt, of Louisiana; *Third*, Dr. H. O. Marcy, of Massachusetts; *Fourth*, Dr. F. P. Porcher, of South Carolina.

Treasurer—Dr. R. J. Dunglinson, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Elliott, of District of Columbia.

Assistant Secretary—Dr. Walter R. Gillette, of New York.

The city of New York was preferred as the place for the next meeting of the Association, and the following gentlemen were named as a committee to make arrangements for the meeting: Dr. L. O.

• Vanderpool, Dr. Stephen Smith, Dr. Wm. M. Polk, Dr. Robert Weir, Dr. Charles L. Pardee, Dr. A. A. Smith, Dr. T. T. Sabine, Dr. Joseph Hutchinson, of Brooklyn; Dr. M. H. Burton, of Troy; Dr. Parker, of Poughkeepsie.

The Committee on Nominations reported further:

Committee on Publication.—Drs. W. B. Atkinson, T. M. Dagsdale, A. Fricke, S. D. Gross, Casper Wistar and R. J. Dughlison, of Pennsylvania; and Wm. Lee of District of Columbia.

CHAIRMEN AND SECRETARIES OF SECTIONS FOR 1880.

I. Practice of Medicine.—Dr. J. S. Lynch of Maryland, Chairman; Dr. W. C. Glasgow, Missouri, Secretary.

II. Obstetrics.—Dr. Albert Smith of Pennsylvania, Chairman; Dr. Robert Battey of Georgia, Secretary.

III. Surgery and Anatomy.—Dr. Wm. T. Briggs of Tennessee, Chairman; Dr. J. Powell Adams of Minnesota, Secretary.

IV. State Medicine.—Dr. James F. Hibbard of Indiana, Chairman; Dr. T. F. Wood of North Carolina, Secretary.

V. Ophthalmology.—Dr. B. A. Pope of Louisiana, Chairman; Dr. Eugene Smith of Michigan, Secretary.

Committee on Necrology.—Dr. J. M. Toner, District of Columbia, Chairman; Drs. R. F. Mitchell of Alabama; J. P. Wall of Florida; F. W. Hatch of California; J. B. Cummings of Arkansas; C. Denison of Colorado; G. W. Russell of Connecticut; J. H. Richards of Delaware; T. S. Hopkins of Georgia; J. H. Hollister of Illinois; G. L. Sutton of Indiana; H. B. Ransom of Iowa; C. V. Mottrum of Kansas; Dudley S. Reynolds of Kentucky; E. A. Lewis of Louisiana; E. F. Sanger of Maine; John Morrison of Maryland; L. F. Warner of Massachusetts; G. E. Barney of Michigan; D. W. Hand of Minnesota; John Browning of Mississippi; J. M. Richmond of Missouri; J. R. Black of Nebraska; L. S. Hill of New Hampshire; H. D. Didama of New York; John Blaine of New Jersey; T. J. Haywood, Jr., of North Carolina; S. Loring of Ohio; Frank Woodbury of Pennsylvania; C. H. Fisher of Rhode Island; Manning Simmons of South Carolina; J. B. Lindsay of Tennessee; H. W. Brown of Texas; O. F. Fassett of Vermont; L. S. Joynes of Virginia; R. W. Hazlett of West Virginia; J. V. Reeves of Wisconsin; J. J. Woodward, and A. L. Guion of U. S. Army.

The report of the committee on nominations was upon motion accepted, and the recommendations confirmed.

Dr. Lewis of New Orleans, the chairman of Committee on Obstetrics, then presented an able address, which was referred to the Committee on Publication.

Dr. Seguin of New York, then offered a report in favor of the adoption of the metric system, and in a few words asked the concurrence of the association. The association approved of the report, adopting the following resolutions:

First,—that the American Medical Association adopts the International Metric System, and will use it in its transactions.

The second resolution requests that the gentlemen presenting papers at future meetings of the

association, make all their measurements and calculations according to that system, and use only those denominations in their papers and reprints.

The third resolution seeks the practical coöperation of hospitals and colleges in establishing the system, recommending its exclusive use in those institutions.

The fourth resolution looks to the education of physicians and pharmacists in the system, through the voluntary assistance of physicians who have mastered it.

The fifth resolution was for the appointment of a committee to improve and harmonize the efforts towards the metric system.

Dr. Chaille moved that Congress be petitioned to remove the import duty from books sent to physicians for their personal use, which was promptly adopted.

Dr. Brodie of Detroit, presented an inquiry as to what are generally denominated "patent medicines," and how far regular physicians should be allowed to recognize them. His query was referred to the Judicial Council. Several other knotty queries and amendments were proposed, and final action deferred until next year.

THE FOURTH DAY'S PROCEEDINGS.

The reports of papers and references which we have given in our report of each section, from all the sections, were handed this morning, and the recommendations for reference or extension granted. Dr. Chaille's resolutions for the improvement of the medical organizations were unanimously agreed to.

The California petition pressing for immediate and outspoken advocacy of a National Quarantine, was referred for action.

The President then announced as

REPRESENTATIVES TO FOREIGN SOCIETIES

Dr. E. C. Seguin, of New York, Dr. Vandell, of Kentucky; Dr. J. M. DaCosta; Dr. Moses Gunn, of Illinois; Dr. Turnbull, Dr. Warren, Dr. J. T. Hodgson.

Delegates to the Canadian Association.—Dr. H. Hutchins, Dr. W. Brodie.

Committee on Congressional Action on Hygiene.—Drs. Pratt, Davis, Garcelon, Gross and Bell.

It was then resolved that the next meeting of the association be held in New York city, beginning on the first Tuesday in June, 1880.

The committee on Nominations reported the completion of their work.

Committee on Prize Essays.—Drs. Austin Flint, A. C. Post, Joseph Hutchinson, J. W. Gouley and M. A. Pallen.

The usual resolutions for the publishing of the Transactions and the Control of the Finances, were adopted.

Dr. Knapp's paper, which had been referred from the sixth section to the association, was then read.

The Committee on Prize Essays awarded the first prize to Dr. A. McLane Hamilton for his paper on "Primary and Secondary (local) Degeneration of the Lateral Columns of the Spinal Cords."

No other prizes were awarded, but "Explorations in Physiology," was highly commended.

A rising vote of all members returned thanks to the people of Atlanta, to the people of Georgia,

to the resident fraternity, and to the obliging rail and coast lines.

President Parvin, in closing his official career, then stepped to the front of the platform, and said:

Gentlemen of the American Medical Association: Less than one year ago we met in a great city of the Empire State of the North. To-day, we are to part in a great city of the empire State of the South. Then we stood where we could almost hear the roar of Niagara. To-day we are in this beautiful city with its kindly hearts, its profusion of lovely flowers, its warm welcome sweet as the springtime air. How, in the gladness of Spring, with its buds and its blossoms, its beautiful emblems speaking to us of life and the resurrection of life. One year ago you honored me. I thank you for it. I hope that I have not disgraced that honor, though I am aware that I have not fully met its requirements. To-day I resign the Chair to one whose name is not only known throughout our own land, but is recognized and honored abroad wherever the fame of American surgery has reached, Dr. Lewis A. Sayre, the President-elect of the American Medical Association.

The applause that followed Dr. Parvin retiring, was continued, as a greeting to Dr. Sayre, when he stepped forward, as president. When the noise of the greeting had subsided, President Sayre addressed the association.

GENTLEMEN: I cannot fully express to you the sense of my appreciation of the honor you have conferred upon me. I think no man can hold a higher or more honorable position than that of President of the American Medical Association. Oh, that I had the tongue of a Parvin or a Grissom, that I might speak to you as I feel. But I cannot express that which fills my heart. I thank you for the honor and will perform the duties of my office as best I can.

The close of the meeting was then announced.

Many of the members remained in the hall to witness Dr. Sayre put one of his Plaster of Paris jackets upon a patient.

SECTION FIRST.

PRACTICE OF MEDICINE, MATERIA MEDICA AND PHYSIOLOGY, DR. THOMAS F. ROCHESTER, BUFFALO, NEW YORK, CHAIRMAN; DR. W. C. GLASGOW, ST. LOUIS, MISSOURI, SECRETARY.

FIRST DAY.

The section was called to order by the chairman.

The business in order was the reading of a paper whose author was absent; therefore this paper was postponed.

Dr. Davis, of Chicago, read a paper on clinical and meteorological records. The doctor showed a thorough knowledge of his subject. His paper was referred to committee on publication.

Dr. J. P. Logan, of Atlanta, presented a paper for Dr. Denison, of Denver, Colorado. Subject, experience of consumptives in Colorado, and some of the æro-hygenics of elevation above the sea, with conclusions.

After the reading of the paper was commenced, it was on motion of Dr. Davis, of Chicago, postponed until 3 o'clock P. M. Wednesday.

Section adjourned.

SECOND DAY.

The section was called to order at 3 o'clock by the chairman.

The paper of Dr. Denison, of Colorado, the reading of which was postponed from Tuesday's session, was ordered read.

Dr. Denison not being present, Dr. Davis, of Chicago, read the paper. Subject, "Aero-hygenics of elevation above the sea," with conclusions.

The paper was a very long one, and before Dr. Davis had half finished the reading he was informed by the chairman that his time was out.

On motion Dr. Davis was allowed time to read the conclusions.

Dr. O'Reilly, of New Orleans, moved that the paper be received, and referred to the committee on publication.

This motion was objected to by Dr. —, of Mississippi, who said he thought if the paper was secured and referred it would seem that the association accorded with Dr. Denison's views as expressed in the paper.

Dr. Davis, of Chicago, said he could see no reason why the paper should not be received and referred. That it contained valuable facts that were well worthy of publication, and it should be published.

The motion to refer it to the committee was then passed.

Dr. Denison asked that the section recommend the signal service bureau to prepare charts to be published with his paper.

On motion of Dr. O'Reilly, of New Orleans, the recommendation was granted.

The paper of Dr. L. D. Buckley, of New York, on the use of water in the treatment of diseases, being in order, was then presented, and read by Dr. Buckley.

Dr. Hopkins, of Georgia, moved that the paper be received and referred to the committee on publication.

The paper was discussed by Dr. Porcher, of Charleston, South Carolina, and Dr. Shoemaker, of Philadelphia. The motion to refer was carried.

The address of Dr. Thomas F. Rochester before the general council was referred to this section, and was here presented to the section by the secretary.

Dr. Rochester called Dr. Lester to the chair.

Dr. Hopkins, of Georgia, moved that the address be received and referred to the committee on publication.

This brought out quite a discussion, which was engaged in by Dr. Lyon, of New Orleans; Dr. Porcher, of Charleston; Dr. Banks, of Griffin, Ga.; Dr. O'Reilly, of New Orleans; Dr. Rochester, of Buffalo, and Dr. Foreman, of the army.

Th address of Dr. Rochester was in favor of a national quarantine as a preventative of yellow fever.

Dr. Lyon, of New Orleans, said that the treatment of yellow fever was as well understood as the treatment of any other serious disease. That yellow fever does originate in New Orleans, and that there is never a year that there is not yellow fever in that city that originates there. Dr. Lyon contends that quarantine laws do no good, and as proof he says that during the late war, when there was not and could not be any communication between New Orleans and the West Indies, there was

not a single year but what there were cases of yellow fever in New Orleans.

He contends that the disease is not contagious, and that it will in future, as it has done in the past, continue to originate in that city. He believes in local sanitary measures instead of the quarantine.

Dr. Hopkins, of Georgia, agreed with Dr. Lyon that yellow fever was of local origin, and that quarantine regulations were useless in preventing the disease.

Dr. ———, of Texas asked Dr. Lyon if quarantine did not keep the fever out of Texas. Dr. Lyon replied that it did not, and asked the gentleman why it did not keep it out of Jackson, Mississippi, which was surrounded by men armed with shot guns.

The question was not answered.

Dr. O'Reilly, of New Orleans, said that in a large majority of years yellow fever will originate in New Orleans. He believes that proper sanitary measures will prevent epidemics in that city. He does not favor a national quarantine law.

Dr. Rochester said he had not treated a case of yellow fever in twenty-eight years. That he did not doubt but what there were occasional cases occurring sporadic in New Orleans, but that he believes that the quarantine would prevent the terrible epidemics.

Dr. Foreman, of the army, said that while the fever might originate in New Orleans, there were cities where it did not originate, and we needed the quarantine against such places as the fever originated in.

The motion to refer the paper was carried.

There being no other business before the association, it adjourned.

Promptly at the commencement of the afternoon session, Dr. G. F. Cooper began his paper of "*Lecithum viride, and its Uses*," the reading of which occupied more than the allotted time for reading one paper, but was permitted by vote, and held the attention of the association until its completion.

Another valuable treatise was read by the Secretary of the section, Dr. Glasgow, on "*Plastic Bronchitis*."

The third paper, on the "Inflammation of the Hair Follicles of the Beard," by Dr. Shoemaker was regarded as especially instructive.

Each of these paper was referred to a special committee of the section to be appointed by its chairman.

SECTION SECOND.

OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN—DR. E. S. LEWIS, OF NEW ORLEANS, LOUISIANA, CHAIRMAN.

Owing to the resignation of Dr. Chadwick, the former secretary, this position was left vacant. Dr. Marcy, of Massachusetts, nominated Dr. Robert Battey, of Georgia, and he was unanimously elected. Reading of papers was next in order. Dr. Robert Battey read a paper on "Tubo-Ovarian Pregnancy" (case); operation, fifth month—death. "Electrolysis of Fibroids," by Dr. E. Cutter, of Massachusetts; "Dysmenorrhœa," by Dr. W. H. Byford, of Illinois.

The reading of these two papers was deferred until the 7th. The regular business being

concluded, the presentation of voluntary reports was in order. Dr. Dunster, of Michigan, spoke of the operation of perineoraphy, and his views were very favorably received. The gentlemen engaging in the discussion were Dr. M. A. Pallen, of New York; Dr. King, of Pennsylvania; Dr. Albert Smith, of Pennsylvania; Dr. Greenfield Dowell, of Texas; Dr. Taliaferro, of Georgia; Dr. Beverly Cole, of California, and Dr. Theophilus Parvin, of Indiana.

Dr. Pallen, of New York, presented a number of pessaries for the treatment of uterine displacements.

Dr. Henry F. Campbell, of Georgia, presented a modified stem pessary for the treatment of uterine flexions. Dr. Taliaferro participated in the discussion of the stem pessary. Dr. Love wished to participate, but, owing to the lateness of the hour, proposed to postpone any further discussion until the next day.

Section adjourned.

SECOND DAY.

Called to order by the Chairman, Dr. E. S. Lewis, Minutes of last meeting read and adopted.

The new gynecological table devised by Dr. Chadwick, of Boston, was presented by Dr. Marcy, of Massachusetts. The doctor explained the workings of the table to the entire satisfaction of all present.

The reading of papers being in order, the Chairman read the paper of Dr. E. Cutter, of Massachusetts (the author being absent), on "The Treatment of Uterine displacements by the Stem Pessary."

Next in order was Dr. E. B. Turnipseed, of South Carolina, on "New Instrument for Operation for Vesico Vaginal Fistula," with cases. The instrument, when complete, embraces the following: New self-retaining speculum, retractors, large apparatus (used in stitching), bearing a smaller comb-shaped apparatus, set with needles, which are clamped when the operation is completed; curved needles, gold triple plated, with hard rubber clamps, with springs; trimmers, dilators on the principle of changeable valves, and a hysterotome.

On motion of Dr. Albert Smith, of Philadelphia, the thanks and appreciation of the section were expressed to Dr. Turnipseed for his industry and mechanical genius. The next paper in order was that of Dr. E. Cutter, of Massachusetts, postponed from last meeting. This paper was read by Dr. Dunster, of Michigan, the subject being the "Electrolysis of Fibroids." This was a highly interesting and very able paper, and, on motion, was referred to the Committee on Publication.

On motion, Dr. Pallen, of New York, presented large drawings of a lacerated perineum, and from these he demonstrated his mode of operating. He also spoke of the operation of amputation of the cervix, or, as he proposes to call it, vagino-cervicoplasty, for the cure of sterility. The Chairman appointed as a committee to examine the papers resented to the section, Drs. Dunster, of Michigan; Smith, of Pennsylvania, and Cross, of Arkansas.

THIRD DAY.

Dr. Bartlett occupied the chair, and the annual address to the association was made the theme of discussion by the regular chairman.

Dr. Smith, of Philadelphia, discussed presentations, the changing of the same, and of the positions of the foetus by external manipulations previous to labor. Such changes are demanded for the comfort and safety of the mother, and can generally be accomplished by skill, at proper times, with decided ease and benefit. Some cases, however, defy skill, and are extremely irregular and obstinate. As to the ligation of the cord, sooner or later after the labor, he is very indifferent; his practical experience would recommend that the most opportune moment would be at the cessation of pulsation in the cord. After turning the foetus in utero, he does not bind the abdomen. Dr. Marcy, of Massachusetts, made some remarks upon Dr. Garland's plan of treating prolapse of the cord by rotating the body of the foetus in the uterus, and consequently winding the cord about the body.

Dr. Morris, of Ohio, expressed his very serious doubts as to the propriety of efforts to turn the foetus in the eighth or ninth months, giving as his experience, that success was not assured at that stage.

Dr. Lewis differed widely and entered into quite an able impromptu argument to prove his position, that turning could in the last stages of pregnancy be resorted to with every assurance of success.

Dr. Warner's paper on Tubo-Ovarian Pregnancy, was referred to the committee on publication.

The subject of *Pessaries* was then discussed by Drs. Smith, of Philadelphia, and Pallen, of New York; the latter gentleman taking strong ground against the *Pessaries* of the "shops," and urging that if not perfectly adapted to each particular case, serious injury, rather than benefit follows use. Other gentlemen continued the discussion.

SECTION NO. 3.

SURGERY AND ANATOMY—DR. MOSES GUNN, OF CHICAGO, ILL., CHAIRMAN; DR. J. R. WEIST, OF RICHMOND, INDIANA, SECRETARY.

The chair appointed the following sub-committee: Dr. Briggs, Nashville, Tenn.; Dr. Dawson, Cincinnati, Ohio; Dr. W. F. Westmoreland, of Georgia.

Reading of papers was next in order.

Dr. A. C. Post, of New York, read a paper on "Deformities of Face and Hands Occasioned by Cicatricial Contraction Following a Burn, with Reports of Cases Successfully Treated." The paper was very favorably received, and showed the great advancement made in surgery. The following gentlemen participated in discussing the paper. Dr. Quinby, of Jersey City, N. J.; Brigg, of Nashville, Tenn.; Dawson, of Cincinnati, Ohio. A paper was read Dr. H. O. Marcy, of Massachusetts, on "Aspiration of Knee-Joint, with Cases." The paper received great attention.

Dr. Boyd of Quincy, Illinois; Dr. A. C. Post, of New York; Dr. S. D. Gross, of Philadelphia. Dr. E. B. Turnipseed, of South Carolina, read the following papers; New Surgical Needle, Curved and Spring Clamp at Point; New Apparatus for Treating Fracture of the Clavicle, with Cases; New Method of Reducing Dislocation of Elbow-Joint, with Cases. They were discussed by Dr. Dodge, of Indiana; Dr. Hughes, of Iowa; Dr. Gross, of Philadelphia; Dr. L. A. Sayre, of New York; Dr. Dawson, of Ohio;

Dr. A. C. Post, of New York; Drs. Glenn and Briggs, of Nashville, Tenn.

All the papers having been read, it was in order for voluntary communications. Dr. C. V. Matham, Lawrence, Kansas, read a paper on a report of a Case of Chronic Dislocation of Hip-Joint. Dr. Dawson, of Ohio, showed some specimens of stones.

SECOND DAY.

Called to order by the Chairman, Dr. Moses Gunn.

Minutes of last meeting were read by the Secretary, and were approved.

The reading of papers being next in order, Dr. J. N. Quinby, of New Jersey, read a paper describing a case of conservative surgery.

Dr. Lewis A. Sayre, of New York, read a paper On the Proof of the Value of the Treatment of Spondylitis or Potts Disease by Suspension and the Retention in the Improved Position by the Plaster-of-Paris Bandage. The paper was discussed by Dr. Maddux, of Maryland; Dr. A. C. Post, of New York; Dr. H. O. Marcy, of New York; Dr. E. H. Dugas, of Augusta, Ga.; Dr. Quinby, of New Jersey; Dr. Byrd, of Illinois; Dr. McGraw, of Michigan. Dr. Sayre concluded it.

Dr. Maddux, of Maryland, moved that the thanks of this section be tendered Dr. Sayre, which was agreed to.

The paper was very interesting. Dr. Sayre was invited to apply his plaster-of-Paris jacket before the section.

The next paper was read by Dr. J. E. Link, of Indiana, on Amputations by Open Cone-Shaped Method. The following gentlemen participated in discussing it.

Dr. Beck, of Ohio; Dr. H. O. Marcy, of New York; Dr. Byrd, of Illinois; Dr. Quinby, of New Jersey; Dr. Garcelon, of Maine; Dr. Fuller, of—, concluded by Dr. Link, of Indiana.

The next paper was read by Dr. H. F. Campbell, of Augusta, Ga., on Urinary Calculus, with Consideration of its Hygienic, Etiological, Pathological, and Surgical Relations, with Forty-six Cases. It was discussed by Drs. Dawson and Mussey, of Cincinnati, Ohio, and Dr. Dowell, of Texas.

The further discussion was postponed until after the regular business.

THIRD DAY.

Dr. Moses Gunn, Chairman. Papers were presented as follows: By Dr. D. W. Scott, on "Ecraseur for removal of Uterine Tumors;" by Dr. J. West of Indiana, on "Carbolic Injections in the treatment of Hemorrhoidal Tumors;" by Dr. Maddux, on "Gonorrhea;" by Dr. T. F. Rochester, on "Perityphlitic Abscess opening into the Bladder and Rectum;" by Dr. A. M. Pollock of Pennsylvania, on "Administration of Anæsthetics," recommending the use of an instrument with improvements as suggested by himself.

The papers were discussed by Drs. A. C. Post of New York; Byrd of Illinois; Dawson of Ohio; Quinby of New Jersey; Murphy of Minnesota; Brown of Texas; Smith of Michigan, and Cook of Louisiana, and were afterwards referred.

By request, Prof. L. A. Sayre of New York gave a practical illustration of the use of his Plaster of Paris jacket, applying it to two patients. The exhibi-

bition attracted general attention, and the professor was awarded great praise for his skill.

SECTIONS 4 AND 5.

The fourth section of the association consists of two of the former sections, namely: that on medical jurisprudence, chemistry and psychology and that on state medicine and hygiene. These two departments were consolidated at the morning session of the association, and the fusion was called section four.

The new section met at 3 o'clock in the room of the president of the senate. Section called to order by Dr. J. T. Reeve, of Wisconsin, the secretary, who announced that owing to the temporary illness of Dr. John S. Billings he could not be present. It was therefore necessary to appoint a chairman for the session of the section for the afternoon.

On motion of Dr. E. L. Griffin, Dr. J. L. Cabell was unanimously elected chairman.

Dr. A. N. Bell announced that by the vote taken in the American medical association in the morning the two sections above named had been consolidated. He also announced the death of Dr. Wm. N. Compton, the former chairman of the section on medical jurisprudence.

Dr. Grissom, of North Carolina, paid an eloquent tribute to the memory and virtue of the deceased doctor who had died a sacrifice to the yellow fever, in which he had nobly labored for his fellow men.

The chairman appointed as a committee to prepare proper resolutions on the death of this esteemed physician, Dr. Grissom, of North Carolina, and Dr. Toner, of Washington City.

The first paper presented to the section was by Dr. H. A. Johnson, of Illinois. It was on the subject of the regulation of medical practice by state boards, as exemplified in Illinois. The paper was a full exposition of the thorough reform effected under the provisions of the new law. The thorough acquaintance of Dr. Johnson with the practical workings of this system made his paper of great value as a medical document. The paper was received with the thanks of the section.

Several of the members of the section asked questions as to how the present law in Illinois worked.

Dr. Rauch, of Chicago, spoke fully of the success of the present system of regulation in Illinois, and the good it had accomplished to the people generally as well as to the profession in elevating its grade.

Dr. Guion, of the United States Army, believed in the thorough regulation of the practice by the State in such a manner as to prevent quacks from imposing on the public, simply because they could show a diploma.

The discussion on the question was protracted, and numerous inquiries were made. But for the brief space we are compelled to allow each section, a most interesting report of the proceedings of this department could be given.

Dr. S. E. Chaille, of New Orleans, read an exhaustive paper on State medicine and State medical societies which held close attention and created an impression by its logical analysis of the question suggested. The paper was a masterly plea for State medicine and its systematization as the only

means by which the government could perform its high duties to its people.

Dr. Bell moved that a vote of thanks be returned to the author of the paper. He spoke in very high commendation of it and moved its reference to the general session.

The next paper was a very scientific thesis on psycho-physiological hand, by Dr. E. Seguin, of New York. It was exceedingly interesting and was closely attended by the joint section. The theory of the paper was that in cases of idiots all education of intellect must begin by education of the senses. He gave a most interesting case of education of an idiot by a Miss Meade in New York.

SECOND DAY.

Dr. Cabell, of Virginia, who had presided over the meeting of this section the previous evening, was on motion elected a chairman of the section during Dr. Billings's sickness.

Dr. Grissom, of North Carolina, presented a report from the committee appointed to draw a fitting memorial on the death of Dr. Compton, of Mississippi. The memorial was a beautiful tribute to the memory of the good and gifted man of whom the spoke. The report was signed by Drs. Grissom, Toner and Pratt. The memorial concluded with resolutions expressive of the regret of the section at the untimely death of this distinguished Mississippian, and declaring that his memory will be cherished with the virtues his life presented.

Dr. Taylor, of Kentucky, asked the honor of moving the adoption of the resolutions.

Dr. Browning, of Mississippi, seconded the motion, and the resolutions were adopted.

The first business was that relating to State medicine. A paper was expected from Dr. J. N. DeHart, of New Jersey, but was absent.

A paper on "The new principles of protective sanitation in its relation to public hygiene," by Dr. H. R. Storer, of Rhode Island was next in order. The author was absent, but his paper was read to the section by Dr. E. S. Dunster, of Ann Arbor, Michigan. It occupied about thirty minutes and held close attention. It was full of historical knowledge and sound suggestions of true sanitary policy.

The paper was referred to committee on publication.

A report by Dr. R. J. O'Sullivan, of New York, on intervention of physicians in education was expected by the section, but the doctor and his paper were both absent.

The consideration of the address of Dr. Billings, chairman of the section, who was kept away by sickness, was tabled for another day, when it was hoped Dr. Billings will be well.

Dr. E. Seguin, of New York, made some remarks on the intervention of physicians in education, the subject which Dr. O'Sullivan had been expected to treat. His views were forcibly put, and were heard with attention by all.

It was moved that Dr. Seguin be requested to commit his remarks to writing for the future consideration of the section.

Dr. Bell said the more orderly way would be to let Dr. O'Sullivan's paper come up, and Dr. Seguin

could then give the section the benefit of his wisdom. The motion was withdrawn.

The section took up some resolutions offered by Dr. Billings, that the American medical association recommended that every physician aid the superintendent of the census in his efforts to make up his statistics of mortality. That every physician make a record of all his cases from the first of June. Every physician in the United States will be furnished with blanks for the filling out the reports asked. The resolutions were adopted.

Resolutions on the organization of the profession in all States were read. It was proposed to organize all members of the profession in good standing into county organizations. The section gave its approval to such a course whenever it may be deemed necessary.

THIRD DAY.

Dr. J. F. Hibbard—Chairman, Dr. Chaille of New Orleans, called up his paper that had been returned from the association, and the section ordered its publication.

He presented a series of resolution in conformity with his report, looking to the more perfect organization of the profession, and defining the purposes of the association, which were adopted.

A paper on the merits of the Massachusetts Medical Examiner system was considered and ordered to be published.

Dr. Billings' very able report on Hospitals fully illustrated with diagrams was ordered to be published under such instructions as he might deem proper to give.

The consideration of the paper on Small Pox in its initial fever by Dr. Alban S. Payne, of Virginia, closed the session.

THE SIXTH SECTION.

The ophthalmology section—Dr. H. Knapp, of New York, presiding. In the absence of the secretary, Dr. Scott, of Cleveland, Dr. Calhoun, of Atlanta, was elected secretary pro tem. First in the order of business was the election of Dr. E. Williams, of Cincinnati, as honorary president, and Dr. B. A. Pope, of New York, vice-president.

The first paper was read by Dr. Williams; subject, "ivory bony tumor of the socket of the eye."

Dr. Voorhees, of Memphis, then read an interesting paper "an a case of great impairment of sight, produced by poisonous effects of excessive doses of quinine."

The third and fourth papers by Dr. Knapp consisted of microscopic demonstrations and remarks on a large tumor (sarcoma) of the acoustic nerve, from the practice of Dr. Stevens, Albany, New York; and, secondly, of a degeneration of the iris and ciliary body probably of a tuberculous and syphilitic nature.

The meeting was concluded by an extensive discussion on the symptoms, the course and the treatment of syphilitic diseases of the cornea.

SECOND DAY.

The section on ophthalmology held two sessions from 9 to 11 a. m., and from 3 to 6 p. m. Dr. H.

Knapp occupied the chair. The principal object of discussion was "the operations for cataract" on which extensive papers were read by Doctors Pope, Calhoun and Knapp. In the discussion about twelve members took an active part. A paper was presented by Dr. Reynolds, of Louisville, "on the operative cure of cystoid cicatrix following operations for cataract and glaucoma." Dr. Smith, of Detroit, read a paper on the operative cure of exophthalmia. In conclusion Dr. Knapp presented two anatomical specimens, the one with plastic cyclitis, the other with a chip of brass lying in the ciliary body, and gave a brief history of the cases to which the specimens referred.

THIRD DAY.

Dr. A. Knapp, Chairman.

The only paper presented was by the Chairman, on "Mastoid Disease." He presented illustrative specimens, and used the blackboard to explain the more intricate portions. The paper gave evidence of research and careful preparation, and called forth an interesting discussion, in which Drs. Leartus Connor, Pope, Smith, Calhoun, and Voorhees took part.

Dr. White, of Baltimore, to whom had been assigned "Color Blindness," as a theme, being absent, and all other papers of the section for the year having been appropriately referred, the session of the section was closed.

NEWS ITEMS AND NOTES.

Absence of One Kidney.—At the necropsy of a patient who died some time ago of typhoid fever, at the Hospital St. Jean, at Brussels, it was found that he had only one kidney—the left—while the right was represented by a mass of connective tissue of the size of a Spanish nut. The vessels and ureter belonging to the left kidney were decidedly enlarged, as also was the organ itself; while the vessels belonging to the right kidney were rudimentary. There had never been any disturbance in the urinary section.

Sexual Homology.—Dr. Watson read a paper before the Manchester Medical Society, on sexual homology, illustrated by comparative anatomy and pathology. After sketching in outline the chief facts concerning the development of the sexual apparatus in the mammalia, he proceeded to point out the homologies of the genito-urinary organs in the two sexes. Dr. Watson concluded his paper by affirming that, since it was evident that, in the female, the parts may be arranged exactly as in the male and *vice versa*, the specific mark of sex is the presence of a distinctive sexual gland; and that consequently, the only form of true hermaphroditism is that in which a testicle and an ovary coexist in the same individual, whilst all other forms must be regarded as spurious.

The Vienna Society of Physicians has chosen its former Vice-President—Professor von Hebra—as its President, in the place of Professor von Rokitsky. Professor von Dumreicher has been elected Honorary President; and Professor Botkin of St. Petersburg an honorary member of the society.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

DYSTOCIA, AND THE VALUE OF ERGOT
AS AN OXYTOIC.

A Lecture Delivered before the Medical Class of the University of Pennsylvania.

by

RICHARD A. F. PENROSE M.D.

Professor of Obstetrics and of the Diseases of Women and Children.

(Reported for the HOSPITAL GAZETTE.)

Before I begin my lecture to-day I wish to say a few words to you regarding this dried botanical specimen. It is known as the Rose of Jericho, and grows on the right bank of the Jordan near the site of that once famous city. It was brought to me by Dr. Spier of the U. S. Navy. The Rose of Jericho is supposed by the Greek people to assist in cases of difficult labor and is very highly esteemed by them accordingly. One is kept in every town, and whenever a woman's labor grows tedious and difficult, the plant is brought and placed beside her bed with its stem in a cup of warm water, and as its dried leaves expand and grow green the hand of the Holy Virgin is believed to be miraculously held out to assist her.

When I last met you I ended the hour by dividing the causes producing difficult and tedious labor into three, viz:—(1) *those dependent upon some constitutional peculiarity of the mother*, which I said should be met by moral and expectant treatment, (2) *those resulting from some profound nervous impression upon the mother's system*, and (3) *those dependent upon some local modification in the uterine organs themselves*. Regarding this last class of causes you will no doubt recollect that I began my discussion by suggesting that the most common condition under this third head was that of excessive distension of the uterus by the pressure of two or more children, or by an unusual quantity of liquor amnii contained in it. You will also call to mind what I said concerning the effect produced upon the bladder by such a state of uterine distension, viz:—it becomes constantly overdistended and finally, its walls becoming paralyzed, is entirely unable to voluntarily empty itself.

When the cavity of the uterus is unduly distended, either by twins or triplets, or by an unusual quantity of liquor amnii, labor will invariably be more or less tedious, for the walls of the uterus become paralyzed and are consequently unable to expel their contents.

Treatment in such cases depends entirely upon the peculiar circumstances which render the labor tedious. When (1) the labor is rendered tedious by the presence of twins or of triplets, the treatment is that which is always demanded in instances of plural conception. When (2) the labor is prolonged by an excess of liquor amnii in the uterine cavity

the proper management consists in all cases in rupturing the membranes early in the course of the labor, *i. e.*, as soon as the mouth of the uterus is at all dilated, and in stimulating the paralyzed uterine walls by friction over the abdomen and by the cautious and judicious use of ergot.

Talking of dropsy of the amnion reminds me of my first case of tedious and difficult labor, which, though it occurred many long years ago when I was as yet a mere stripling, is still fresh in my memory. The woman whom I was engaged to attend was a very large woman and lived in a very lonely and out-of-the-way part of the city. It was very early in the morning that I reached the house and I discovered, upon my arrival, that the mouth of the womb was well dilated, at least sufficiently so for me to introduce my index finger and feel the presenting head of the child, and that the pains had already been for some time strong and well established. My patient's pelvis I satisfied myself was of immense capacity and upon inquiry I found that all her previous labors had been rapid and that her uterus, when it did not contain a fœtus, was always in a state of prolapse. I watched the woman closely all that day and twelve hours later, made another vaginal examination and, although the pains had greatly increased in severity, the mouth of the uterus was still no larger than the size of a silver half dollar.

My spirits drooped, but with a strong effort I regained courage and made up my mind to stay where I was and see that woman safely through, if it detained me until doomsday. This determination, as you may well imagine, cost me no little strength of mind. It was the middle of January and the ground was covered with snow, the window of the room, assigned to me in the little, wooden, tumble down, two-story shanty, overlooking a graveyard, outside the tombstones shone weird and ghastly in the general darkness as the moon peeped out for a moment from between two black clouds. The wind sighed sadly through the dead grass tops and leafless trees. Inside the house and in the front room, which was but thinly partitioned off from my own, lay the suffering woman whose every pang I felt acutely; and, worse than all this, gentlemen, I had not the least idea of the cause of her prolonged pains nor of the way to relieve them.

Time wore on. The lamentations and groans of my now almost insane patient still fell upon me, sleepless and helpless. Outside of the house the bleak gusts of wind still shrieked responsive. Occasionally I visited the patient's apartment only to find her doing worse. Again I would descend to the sitting room down stairs where the husband was moodily wandering about and wondering, "how much longer it would be before baby was born." But for some unknown reason baby still persisted in not being born. I became almost wild, and the poor patient's mother began to assume a very tigerish expression. I was at length driven to desperation and I determined not to leave the patient's room again until I had solved the cause of the delay in the child's birth and invented some plan of rapid delivery.

Of course all the trouble was caused by dropsy of the amnion. My diagnosis and treatment, as you will all of you allow, were at least very original. Of

four things I was very sure, viz:—(1) an external, abdominal examination proved to me that the uterus was much larger than usual; (2) that a segment of the bag of waters could not be made to protrude, but remained flat and tense, this you will all of you easily understand; (3) that the child's head was very movable; and (4) that the most careful auscultation did not reveal the sounds of two fetal hearts. Putting all these things together and pondering thereon I, at last, came to the conclusion that the case was one of dropsy of the amnion and that it was my duty to evacuate the contents of the bag of waters promptly. Slowly and with many misgivings I proceeded to rupture the membranes. I ruptured them and quart after quart of the liquor amnii poured in great streams from the vagina, until fully two gallons of fluid had escaped. The floor was flooded, the bed clothes drenched, until at last, I speak the truth, gentlemen, a narrow stream had made its way out of the bed-room door and trickled slowly down the stairs. In fifteen or twenty minutes after the membranes were ruptured out came with great celerity the most enormous baby I have ever had the pleasure of delivering. In a case of dropsy of the amnion the child is usually feeble, or imperfect, but here it was vigorous and healthy.

Such was my first case of dropsy of the amnion. I have attended many cases of the disease since then, but never one whose incidents have impressed themselves so indelibly upon my mind and memory. In nearly all of the cases which I have attended I have had to cope with serious flooding after labor on account of the paralysis of the uterine muscles produced by their prolonged and ineffectual attempts at contraction.

So much for plural births and dropsy of the amnion as causes of modification in the uterine tissues. Another very frequent cause of dystocia is plethora. A plethoric organ is not capable of performing its natural functions perfectly, but completes them imperfectly and sluggishly.

The diagnosis in such cases as these is usually reached by a process of exclusion. The labor is tedious, you reason, and why? Is there any feebleness of the expelling powers? No. Is there any excessive distension? No. Is there any cause of obstruction to the onward progress of the child due to malformation of the pelvis? No. Is there a condition of plethora? Yes. And how is plethora as a cause of tedious and prolonged labor to be treated? What are its symptoms?

The symptoms are a full bounding pulse, headache, flushed face, and ringing in the ears. One of the best forms of treatment and that which is the most serviceable in country practice is venesection. Open a vein in the patient's arm and bleed her until the symptoms of fulness disappear. In the city, morphia and tartar emetic take the place of venesection. However, even in the city, I frequently bleed with the most beneficial results. In primiparae the lancet is always of very great service. I remember one case in which a patient of mine was confined in the country during the summer, so that I could not be present. After her return to the city she told me that her pains began at two o'clock in the morning and continued all that day and night; that at two o'clock on the following morning her medical

attendant bled her profusely, and that while the blood was still flowing the pains become strong and regular, and the baby was born in the course of half an hour. Therefore, I say, do not be afraid to use the lancet, particularly in country practice. Many medical men are really afraid to cure their patients, indulging, as they do, in some vague, undefined dread of the lancet. The use of the lancet certainly prevents the dangers of puerperal convulsions and of apoplexy, and their serious and often fatal effects upon the brain.

We come now, having discussed dropsy of the amnion, plural conceptions and plethora, to the consideration of impairment and feebleness of the uterine muscles as a cause of tedious labor. Very many women have weak wombs, *i. e.*, wombs with weak muscular organizations. You must not be led into the error of supposing that there is any relation between the strength of the general system and the strength of the uterine muscles. A woman who is of very sturdy build may have a very weak uterus, and *vice versa*, just as we often find a weak heart, or stomach, or weak bowels in an otherwise hardy and healthy person; so too with regard to the bladder.

The diagnosis in such cases, *i. e.*, where the uterine muscles are weak, is reached by the same process of exclusion, to which I have already had occasion to direct your attention. The most careful examination fails to reveal any plethora, or obstruction, or over-distension of the uterine muscles, and so we are forced to conclude that there is some uterine weakness at the root of the difficulty. It is a well-known fact that the uterus loses some of its power with each succeeding labor.

Where the labor is prolonged by essential weakness of the muscles of the uterus, the bag of waters should be ruptured at a comparatively early stage and the walls should be stimulated by friction and by the hypodermic injection, or internal administration of ergot, to perform their functions properly and rapidly and so expel the child.

I have so frequently referred to ergot during this lecture and at other times that I think I ought to devote some space to a discussion of its natural history, therapeutical properties and uses, and perhaps I can employ no other time more profitably to the consideration of this subject than the remainder of this hour.

Ergot is a spurious grain growing upon the common rye. It is, in fact, a parasitical fungus which grows on its stalk. This same fungus attacks other plants rendering them ergotic and enduing them with much the same qualities as those possessed by the ergot of rye.

The ergot of rye, otherwise known as the "rye of the womb," from its well-known oxytocic qualities, was known as long ago as the year 1780, but it has not been until the last century that it has received careful scientific examination.

It will not be necessary for me to go into any elaboration of the botanical properties of ergot, for I have no doubt but that you have heard this subject already fully discussed by the professor of materia medica and therapeutics, Dr. H. C. Wood, Jr.

You all know that the effects of ergot are most marked. Its use renders the contractions of the uterine muscles longer, stronger, and more frequent.

When a large dose is given, in a case of miscarriage, for example, a post-mortem examination shows the uterine muscles to be in a condition of tetanic rigidity. The woman herself is at once cognizant of the effects of the ergot, and complains greatly of the uninterrupted agony caused by the stronger contractions of the uterus. When ergot is employed in any instance, the labor usually terminates with unusual rapidity, and its use gives rise to one long-continued pain of parturient effort.

This being so, you can all easily understand that, if any obstruction to the expulsion of the child exist after the ergot has been administered, the consequences may be most serious and perhaps fatal to the mother. In two cases which came to my notice, although I am happy to say that they did not occur in my own practice, both of occipito-posterior presentation, the use of ergot was followed almost immediately by rupture of the uterus and death.

If the results are not so serious as they were in these two instances, the cervix, or vaginal canal, or perineum are but too likely to be ruptured, or lacerated by the violence sustained, as the child is forcibly and rapidly expelled through them. Or again, the ergot may produce convulsions by the intensity of the nervous action to which it gives rise. Nor is it the mother alone that is liable to suffer from the injudicious employment of the drug. The child is, of course, subjected to the most terrific compression, while there is at the same time immense compression of the cord and of the placenta, which so interferes with the passage of arterial blood into the child's body that asphyxia is liable at any moment to ensue. Or there may be cerebral paralysis as a result of the pressure to which the child's brain is of necessity subjected. It has therefore come to be a universally acknowledged fact that an unduly prolonged ergotic labor is usually fatal to the child, if not to its mother. Some observers go so far as to hold that ergot is a direct poison to the pregnant woman. It is scarcely necessary, however, for me to waste my time in trying to controvert this point. The compression exercised by the muscular walls of the womb upon the child in a prolonged labor, being followed by equally fatal results without any use of ergot whatsoever. To those who point with confidence to the fact that children have often been known to die of convulsions after a labor in which ergot has been employed, I can only say that the convulsions have been very plainly produced, not by poisoning, but by intra-uterine compression, whether this pressure was only natural or was intensified by the ergot is an altogether different question.

The question is very frequently mooted as to whether ergot can cause abortion. With regard to its abortifacient powers I have not the slightest doubt.

Regarding the medicinal uses of ergot, it is well known to be one of the most valuable remedies in certain forms of menorrhagia. In abortion it is often employed with the greatest benefit in securing rapid expulsion of the after-birth and strong uterine contractions, so that the hemorrhage is quickly stopped.

At first sight one might be led to suppose that the use of the grain of rye as an article of food was very dangerous, but the ascertained fact really is that

there are no greater number of abortions occurring in those countries in which rye-bread is eaten than elsewhere. The specific quality of the fungus being destroyed by the degree of heat necessary to the baking of the bread.

Ergot is by no means the only or universal remedy for a tedious labor, although it is undoubtedly a specific stimulus to uterine contraction. Another oxytocic is *scoparias*, which may be given in doses of from five to ten grains every half hour. Still another drug with the same properties is the *gossipii radix*. This is employed by the blacks in many of the Southern states as a prompt and efficient abortifacient. I, myself, have never had any occasion to resort to the use of any oxytocic but ergot.

Regarding the proper use of ergot, I may lay it down as a rule to be adhered to closely upon all occasions and under all circumstances, that ergot should never be used when any serious obstruction to the natural escape of the child exists. Never dream of using it in cases of malpresentation. The two instances which I have already cited for you of its disastrous effects in such cases, should stand as solemn warnings to you all. Never think of using it save when the child presents properly and until you have abundantly assured yourself that the pelvis is sufficiently capacious to meet all possibilities. You do not want a bit of it in breech presentations, nor where there is great resistance of any sort or kind to the onward progress of the child. Only use it in cases of want of proper uterine expulsive power. In such cases ergot is the whip, the spur, the goad, or what ever we may choose to style it, to the lazy uterus. *When there is plethora employ the lancet; when there is nervous irritability, give opium; and when there is uterine inertia and sluggishness, administer ergot.*

I have spoken elsewhere and upon previous occasions concerning the value and uses of ergot as a hæmostatic after cases of abortion and in post-partem and other varieties of uterine hemorrhage, so that I need not refer again to those questions to-day.

Regarding the proper dose of ergot, I usually give from twenty to thirty grains of the freshly powdered ergot every quarter or half hour in sweetened water, until its physiological effects are manifested. Ramsbottom's dose of the infusion is two drachms at about the same interval. The way in which to prepare an elegant infusion yourself is to put two drachms of the freshly powdered ergot in four ounces of boiling water, and let it infuse for twenty minutes, not longer. Of this preparation, after filtering, one half a fluid ounce may be given every half hour up to the production of ergotism, or until the whole four ounces have been taken.

The fluid extract of ergot is a very excellent form of the drug for internal administration, but is very hard to make. Use that fluid extract only which is made by the best pharmacists. Never buy cheap fluid extracts. You must pay a good deal of money for a good fluid extract of ergot.

To make the wine of ergot, you must buy the ergotic grains and do the making yourself, unless you live in a large city and have some pharmacist upon whom you can altogether rely. And do not make the wine of ergot as the Dispensatory of 1870 suggests, or rather, directs. The wine of ergot is

properly made by immersing good ergot in so much sherry wine, and it is an exceedingly efficient form of the drug when it is well made. It does not spoil, and is so thoroughly reliable that you do not need any other preparation. One very good point in its favor is that it does not excite nausea. The official wine of ergot contains seven grains and a half in each fluid drachm, so that a tablespoonful of it will contain half a drachm of ergotic grain.

Ergot in too large a dose almost always excites nausea, and this very often follows comparatively moderate doses of the infusion and fluid extract. Occasionally we hear of very extraordinary effects following the use of ergot. I remember a patient of mine, a young lady whom I was called to see, and found to be suffering acutely from a neuralgic headache. She was seventeen years of age, and I came to the conclusion that the best thing for her was a large dose of ergot, so I told her to send to a drug-store and get a fluid ounce of the fluid extract. Of this she was to take a teaspoonful at nine A. M.; another at three P. M., and another at six P. M., *i. e.*, a fluid drachm of the medicine every six hours until her symptoms passed away. At eight o'clock that same night and, therefore, before the fourth dose had been taken, I was called to see her, and found her headache gone, her face pale, her pupils dilated, her intelligence markedly impaired, her pulse slow, and her feet cold. All this had happened after the ingestion of three fluid drachms of the fluid extract of ergot at intervals of six hours.

I put the patient at once upon stimulus—brandy and Hoffmann's anodyne. She had had several spasms about the heart, which had frightened her and her family exceedingly. She had another just as I arrived, and I found the condition of ergotic narcosis very strongly marked. It was only after working with her for some time that I succeeded in counteracting the narcotic influences. Remember, therefore, that occasionally when you administer large doses of ergot, you may produce narcosis instead of nausea, and be very careful to watch your patient carefully for the development of any idiosyncratic and therefore dangerous symptoms.

ORIGINAL ARTICLES.

DILATATION OF THE RECTUM IN THE TREATMENT OF HÆMORRHOIDS, FISSURED ANUS, AND AS A PROPHYLACTIC MEASURE IN FISTULÆ.

WILLIAM A. BYRD, M.D., Quincy, Illinois.

According to Dr. Geo. T. Center, of Evansville, Indiana, in an able article contributed to the Feb. 15th, 1879, No. *Am. Med. Bi-Weekly*, "M. Verneuil, in presenting lately to the Societe de Chirurgie, in the name of one of his old pupils, Dr. Foutan, a brochure on the Treatment of Hæmorrhoids by Forced Dilatation of the Sphincter Ani," expressed the opinion that the records contained in this volume, like the facts which M. Verneuil himself has had occasion to collect, are of a nature to suppress henceforth all bloody operations for hæmorrhoids."

What operation, heretofore, has been most generally resorted to in France for the cure of hæmorrhoids I cannot tell, but in America the ligature has been

used almost universally by the most prominent surgeons, as their writings testify; and the proper application of the ligature to hæmorrhoids for their cure certainly does not deserve the title of a "bloody operation."

For the last eleven years I have been dilating the rectum preliminary to ligating hæmorrhoids. The dilatation being first practiced upon Mr. Conner, J. R., of Lima, in this State, in the Spring of 1868. I had operated upon him for hæmorrhoids by transfixing and ligating without an anæsthetic, but the operation only gave partial relief on account of the imperfect manner in which it was performed. The pain was so great that he would retract the rectum in spite of every effort made to prevent it.

At the second operation, assisted by my then partner, Dr. J. W. Greenley and Mr. Temple H. Davis, a medical student, he was put under the influence of chloroform and ligation undertaken through a speculum. The speculum acting unsatisfactorily I conceived the idea of inserting the fingers of my left hand, cone shaped, into the rectum and allowing the tumors to drop into the concavity of the hand and to transfix and ligate the tumors in that situation. The hand acting as a wedge caused the sphincters to give way, allowing the rectum to roll out, as in partial prolapsus. The tumors were then easily ligated without transfixing.

The operation was done in the morning.

The patient being a photographer and having some customers come from a distance in the afternoon, who desired their pictures taken, got up and went to work, much against instructions. He made an excellent recovery and has remained well ever since.

The same spring, with the same assistants, I operated upon Jacob T—— for fissure of the anus, by inserting my fingers wedge-shaped into the rectum, intending in this instance as in the other to use the hand for a speculum and to divide the fissure with a knife in the concavity of the hand. The wedge action of the hand caused a rent to occur at the location of the fissure of such depth that I considered the cutting operation unnecessary. The patient made an excellent recovery.

These two operations taught me that by dilating the anus the rectum could be easily everted and tumors brought external to the body and readily operated upon. And farther, that the sphincters, after dilatation, readily regained their tone, permitting free and painless evacuations after operations involving loss of tissue from the use of the ligature.

Hearing other operators complain that patients were not entirely relieved of pain and difficulty during defecation, after the use of the ligature in the treatment of hæmorrhoids, I concluded that my patients were exempt from after trouble on account of the preparatory dilatation and have invariably dilated in all the cases that I have operated upon since.

In many of the cases I have had the kind assistance of Drs. J. N. Ralston, L. H. Cohen, Francis Drude, Jacob A. Wagner, J. E. Cheney, J. T. Wilson, J. C. Pearson, Wm. M. Landon, E. G. Pugh, and others.

The best speculum in these operations is either the human hand or a loop of strong wire, with the

patient either in Sims' position or upon Bozeman's chair.

Dilatation alone is insufficient to cure the trouble from hæmorrhoids. After the dilatation, where the lax areolar tissue and dilated vessels were, will become infiltrated, and, the infiltration being absorbed, there will be left teat-like processes—I generally call them *dog ear* excrescences—larger or smaller, as the case may be, which rubbing against the opposite wall of the rectum will cause irritation, or sometimes a fissure or return of the hæmorrhoidal trouble. Inspissated mucus or husks of grain or small seeds becoming lodged in the folds of these tumors cause excoriation, itching and great uneasiness.

Most surgeons having experience in the treatment of diseases of the rectum must have seen this condition, as it is frequently the result of spontaneous cure of hæmorrhoids.

I recollect being called, some four or five years ago, to see a middle aged lady who had been a great sufferer from "bleeding piles" in her earlier life, to relieve her of a very troublesome itching and uneasiness about the anus. There had been no bleeding for several years. Upon examination I found ten such tumors, as I have described, just within the anus, some being over an inch in length. With the assistance of Dr. L. H. Cohen I dilated the anus and removed them. The lady has suffered no inconvenience since.

After dilatation this lax tissue should be ligated so as to cause it to slough. In ligating it is both tedious and unnecessary to transfix the tissue with a needle and thread. The tissue should be caught up with a good strong forceps, with broad jaws, and held tense by an assistant while the surgeon applies the ligature, of strong flax thread, very tightly just below the forceps; or a better plan, and the one I now adopt, is to take up the hæmorrhoidal tumor in a Smith's clamp, or between the jaws of an artery forceps and cut it off by means of a wire heated with a galvano-cautery battery.

Irritation of a muscle within certain limits causes functional activity; functional activity causes hypertrophy and a continuance of the irritation and activity causes what Dr. L. A. Sayre denominates contracture. The same rule applies as well to the sphincters of the rectum as to the muscles of the extremities.

When the powerful sphincters become hypertrophied and contracted, the muscular coats of the intestine immediately above them being insufficient to withstand the ever increasing deposit of feces from above, become partially or completely paralyzed and at times enormously distended.

This condition will generally be found in connection with fistula in ano. The irritation of the abscess, that is the beginning of the fistula, causes the sphincters to become functionally active and hypertrophied, and the painfulness of defecation being added causes the feces to be retained and the rectum to become an immense pouch. Now cure the fistula with the knife, elastic ligature, or galvano-cautery wire, the sphincters are left hypertrophied, and the cicatricial tissue being tender, the weight and irritation of the feces in the pouch above will very likely cause a recurrence of the trouble; but para-

lyze the sphincters by over-distention, then cut out the fistula and the rectum and sphincters will regain their tone *pari passu*, and the patient will remain well.

The first case that I put this idea to the practical test in was that of a German stone mason, that I saw with Dr. Francis Drude in the Fall of 1873. There were five fistulæ around the anus; one extending clear across from the tuberosity of one ischium to the other, passing immediately in front of and opening into the anterior portion of the rectum. I first dilated the sphincters well with my hand and then laid the fistulæ open with a bistoury.

He made an excellent recovery, having no more rectal trouble up to the time of his death, last summer.

Some time after this operation I saw a case of fistula in ano with another physician, where he operated without preliminary dilatation. The Doctor informed me some three months after the operation, that the fistula had reformed and the patient was as badly off as ever.

About the 1st of February, 1879, John McN— called on me for relief from difficult and painful defecation. He had had fistula in ano, and had been operated upon twice for the relief of trouble within the six preceding months. I found cicatrices marking the site of the former fistulæ, with considerable inflammatory swelling posterior to the anus, the sphincters were in a state of contracture, and there were two or three "dog-ear" remnants of old hæmorrhoidal tumors just within the rectum. The rectum was dilated and full of hardened feces.

I sent him to St. Mary's Hospital, and Feb. 7th, with the assistance of Dr. J. A. Wagner, dilated the sphincters and removed the tumors with the galvano-cautery.

He had small passages from the bowels daily for four days, but the hardened mass was still retained. An injection of warm soap-suds was given through a rectal tube reaching twelve inches up the bowel the fifth day which brought away an enormous mass of hardened feces. In ten days he was discharged well, and has worked at his trade, coal mining, ever since.

Of all the cases that I have operated upon by dilatation and ligation, or destruction of the hæmorrhoidal tumors with the galvano-cautery there has been no recurrence of the disease as far as I have heard.

Different instruments have been made use of for dilating, as have the thumbs of the two hands, but I have found no means so satisfactory and effectual as the insertion of one hand—the fingers being brought together so as to form a cone—which acts as a wedge in dilating. If the sphincters are not overcome by the wedge when the hand is inserted as far as the junction of the phalanges and metacarpal bones, closing of the hand will accomplish the result fully and satisfactorily.

HOSPITAL RECORDS.

GOOD SAMARITAN HOSPITAL, CINCINNATI, OHIO.

SERVICE OF W. W. DAWSON, M. D.

Reported by FLOYD S. CREGG, M. D., House Physician.

TWO CASES OF FRACTURE OF THE LEG TREATED WITH THE "BAVARIAN DRESSING."

The object of the present report is to call attention to the unexceptionable results obtained by the use of the "Bavarian dressing" and at the same time to give in full the manner in which the dressing is applied at this Hospital, it having been introduced by Prof. Dawson some years ago.

I will first report two cases of fracture treated in this manner.

CASE 1. Comminuted fracture of the tibia and fibula. Repair with one-eighth of an inch shortening.

Robert M——, has always been healthy; family history good. Last January his leg was broken; Dr. Reamy was called and sent him to the hospital, where he arrived at 11:30 A. M., four hours after the accident.

Present condition.—Man six feet in height, weight two hundred pounds, gray hair and whiskers; in splendid condition; has intense pain and a bruise on the hip and shoulder besides the chief injury.

Dr. Reamy "diagnosed" the case as a comminuted fracture of tibia and fibula. The tibial comminution being about two and one-half inches in length and about two inches from the head of the bone. The fibular comminution was of about the same length and somewhat lower down.

The comminuted part was thrown transversely across the line of the bone.

Dr. Reamy thought it advisable to put on the "Bavarian dressing," and it was applied from above the knee over the foot.

There was considerable difficulty in bringing the comminuted parts into place, but by considerable manipulation and extension this was accomplished.

January 20th.—Dr. Reamy called Dr. Dawson in consultation to-day, and he continued to treat the case with him till the patient was discharged.

Temperature was never high and he rested without much pain.

The parts about the seat of fracture were so contused that it was thought at one time that amputation would be necessary.

Patient ordered three grs. of quinine and one of opium, three times daily.

January 21st.—Small blister appeared over seat of fracture and grew larger and finally was opened and the parts beneath were as "black as a hat." Limb ordered to be kept elevated. Temperature 101, pulse 98.

January 24th.—The leg had so shrunk that it was necessary to pack the splint with a thin layer of cotton batting. The leg was ordered to be washed with a weak solution of carbolic acid.

February 16th.—Leg continuing to do well. A sore appeared on the heel; all pressure taken off the heel by cutting out piece of splint covering it.

February 26th.—Heel improving under the treat-

ment of chloride of zinc lotion used in the atomizer.

March 16th.—Patient doing well, no movement at the seat of fracture.

March 30th.—Doing well, bears considerable weight on the leg. Walks on crutches.

April 22d.—Discharged nearly well; can bear almost the whole weight of the body on limb. No ankylosis at the knee and ankle, and only one-eighth of an inch shortening by accurate measurement by several physicians.

CASE 2.—Simple fracture of the tibia and fibula.

W. W. W., æt sixty-eight, Ohio, single, carpenter; has always been healthy. Present trouble occurred February 19. While at work he fell over a piece of timber and fractured the leg.

Dr. Mitchell was called in and treated the case, and obtained, as we shall see, a fine result.

The man was sent to the hospital, and Dr. Mitchell diagnosed a fracture of the fibula of right leg, about two inches above the internal malleolus.

The external malleolus was chipped off. There was considerable pain and swelling about the joint. The Bavarian dressing was applied several hours after the accident.

It was applied from below the knee over the foot, and the foot elevated.

March 15th.—Man has had no fever, good appetite and is in good condition; foot easy.

March 20th.—Passive movement commenced, which was somewhat painful and required some force to accomplish anything.

March 30th.—The movement, which was more free, still kept up.

April 10th.—Movement better. Ankle not as large. No movement since the 15th of last month at the seat of fracture. Patient put on crutches.

May 10th.—Can walk and bear weight on it; movement almost complete.

May 20th.—Discharged in perfect order.

I leave the reader to draw his own conclusions, and quote from the article of Prof. Dawson's in the *Maryland Med. Journal* of Jan., 1879, as to the merits of the dressing.

The Bavarian mode should be called the "movable-immovable apparatus—movo-amobile." These terms were used by Seutin to designate the starch bandage, after it had been applied, dried and divided by his pliers. The following advantages may be justly claimed for it:

1. It has none of the dangers charged as belonging to the immovable, such as strangulation, tension, &c.
2. It fits and supports the limb as perfectly as the immovable, and is the most easily moved of all fracture dressings.
3. It can be applied immediately.
4. It prevents swelling—obviates strangulation and undue inflammation.
5. The materials of which it is made are cheap and easily procured.
6. It can be applied with but little assistance.
7. The enclosed part, be it a fractured limb or an inflamed joint, can be most easily inspected—it is ever under the hand and eye of the attendant.
8. When the fracture is adjusted the coaptation is so perfectly maintained, the limb so completely

and so comfortably encased, that extension and counter extension are rendered unnecessary.

9. When the limb is thus dressed the patient may be allowed great freedom. In fractures of the lower extremity he may, at pleasure, rest in bed upon his side or back; or he may move about on crutches. By its ability to keep the parts in positive rest it will give great comfort in diseased joints. In these respects, however, the Bavarian is not superior to the ordinary immovable bandages. The absolute immobility which both of them give to fractured bones and inflamed joints cannot well be over estimated.

10. Lastly by the Bavarian—this move-amobile apparatus, a better result can be attained than by any other.

I am placing this simple manner of treating fractures high, very high. If what has been asserted is true, if it can be realized in practice, then it should take the place of all other methods.

Why has almost every surgeon of distinction invented a splint, or made additions to, or modifications of, existing ones? This question may be answered by the assertion, and the truth of this assertion not be challenged, that all splints have been unsatisfactory. The statistics of shortened limbs and the cases of malpractice in courts all over the land furnish abundant confirmation.

Carsten Holthouse, in a walk through the London Hospitals a few years ago, found the shortening in fractured femurs to range from one-half to three and one third inches.

The recent controversy in high places upon the, "to be or not to be" short limbs, is fresh in the minds of all readers. Upon one side it was claimed that under all plans abridged limbs are found and found so frequently that one of normal length is the exception. By the opposition it was asserted, that the rule had been exactly reversed—that under a certain plan of applying the immovable dressing, to find a short limb was a rare, a very rare occurrence.

The move-amobile will, I think, settle the statistics, and the tables in the hereafter will reconcile the distinguished parties to this controversy; shortening will be but occasional—equal length common.

In confirmation of this statement, extravagant it may be regarded by some, I may refer to a very severe—an aggravated case, treated with a good result, which was reported in the Cincinnati *Lancet* during the early part of the present year. This case shows the possibilities of this treatment. A young girl was brought into the Good Samaritan Hospital, with a compound fracture of the left thigh and a crushed ankle upon the same side. The injury was twenty-four hours old upon its reception in the house. The swelling in the thigh was marked, but the tissues around the ankle were tense and livid. The fracture here was comminuted, and the skin so damaged that the fragments were almost exposed. What could have been done in such a case with splints? Extension by the leg and ankle was impossible. The fracture in the thigh was oblique, and the limb already markedly deformed.

The Bavarian plan was adopted—the limb encased from the perinæum to the heel, extension being kept up during the application. The effusion was

promptly arrested, and after the plaster had been applied forty-eight hours—the swelling had perceptibly subsided. The damaged—the devitalized skin over the internal malleolus, sloughed and converted the lower, like the upper, into a compound fracture.

This patient, with this remarkable injury, moved about in bed with more freedom than is usually allowed to persons with a simple fracture of the leg when dressed with a splint. Fenestræ were made for drainage, one on the posterior part of the thigh, the other opposite the slough at the ankle.

One pronounced effect of the treatment was in the arrest of what seemed to be a very dangerous inflammation—the parts already livid at the ankle,—the tension far above the knee did not augur well for the safety of the limb.

The result in this case—a double fracture—may certainly be presented as strong confirmation of what has been claimed for this method, the same could hardly have been attained by any heretofore—in—use.

1. What is the material of which the dressing is composed?

2. How is it applied?

3. How is it kept in place after it has once been opened?

4. If the limb shrinks, and the apparatus becomes too loose, how can that be remedied?

5. How is it applied to cases of compound fracture?

6. How does it prevent shortening?

1. A coarse quality of flannel, and a good article of Plaster of Paris, are necessary. The more open the woollen tissue, the more of the mineral it will take up; cotton textures do not answer well. The plaster should be mixed so that it may be dipped up with a cup, to be poured over the limb. It should be but little beyond the consistence of cream; cold water should be used; hot promotes, too rapidly, the hardening process.

2. How is it applied? Here is the key to success. It must be put on so as to press evenly all parts of the limb, or it will be worse than a failure. It must fit as exactly as a well-fitted stocking. For illustration, let us select a fracture of the middle of the leg. Take two pieces of flannel that will extend from just above the condyles of the femur to three or four inches below the heel. Sew these together in the middle by two seams, about one quarter of an inch apart; this is to form a hinge—between the seams no plaster is admitted, it must not reach the flannel along this line. Then place this under the limb so that the hinge line may be directly in the middle. Bring the sides of the inner layer up, and join them with a seam along the tibial spine, down over the dorsum of the foot to the space between the great and second toes. Now sew together the parts of the inner layer, which is below the heel,—make this union along the sole of the foot to correspond in line with the junction on the front of the leg. The foot and leg are now completely stockinged, fig. 1. Cut the superfluous flannel down so that a roach is left about one inch high, figure 1, B, B.

Mix the plaster, and whilst an assistant is pouring it over the stockinged leg, with the hand apply it evenly to all parts. Then spread it over the

inner surface of the outer layer of flannel figure 1—A, and bring this up and adjust it to the inner layer smoothly. The hand here also must be the instru-

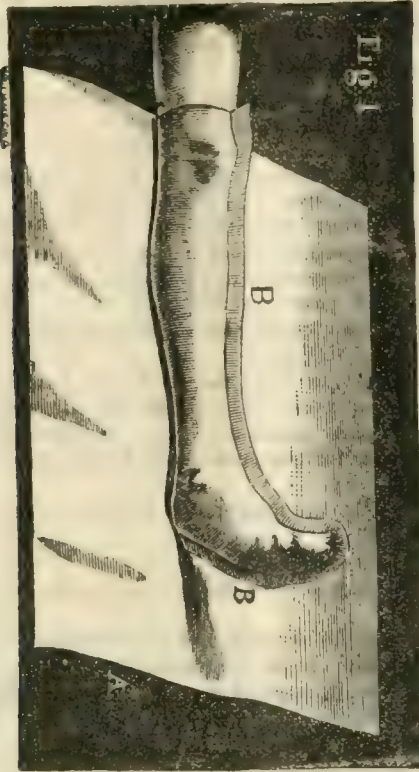


FIG. 1. Showing the leg encased with the inner layer, joined together in the median line, and the roach B B, reduced to about half an inch, and the internal surface of the external layer, A, exposed.

ment for moulding the parts, for pressing the plastered flannel, for adjusting it to all the elevations

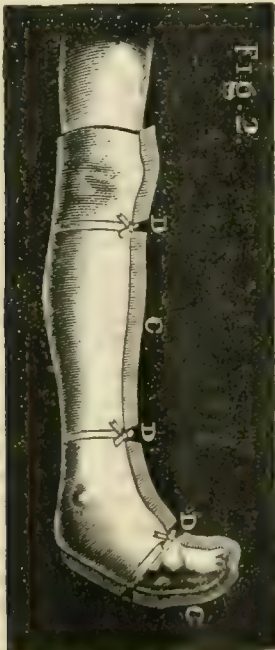


FIG. 2. Showing the dressing complete, the roach notched, D, D, D, and the fillets applied.

and depressions of the limb.

When the two layers come together at the roach, be careful that at this point you make the angle sharp, a right angle. Much of the excellence of the dressing will depend upon the care taken with this; there must be no want of fit—no irregularity in the line. In this you may avail yourself of the hands of your assistant in pressing the parts into position.

For the purpose of examining the fracture at this stage, or, if you prefer, you may wait twenty-four hours or longer, the stitches uniting the inner layer may be cut and the sides pressed apart like the valve of a clam shell.



FIG. 3. The mould or cast removed and separated, showing how exactly it fits the limb.

Upon the best means of fastening the sides of the inner layer, at the junction, there has been some controversy, some advocating long pins, bent at a right angle to facilitate their removal, others prefer stitching. The latter is preferable; the stitches need not be closer than half an inch, and as the seam is so soon to be ripped, the poorer the thread the better. In a case at the Good Samaritan last winter I saw my interne rip up by mere force a Bavarian apparatus that had been applied from toes to the perinæum. He had put in but few stitches, and had used a poor quality of spool thread. To tear off the apparatus in this way without cutting, the plaster must be thoroughly dry. It is desirable to divide the roach and cut the stitches before the plaster has become dry and firm. The roach at this stage can also be more easily reduced—cut down to about half an inch in height. Figure 2, C C.

3. The case or splint can be kept in place after it has been divided by cutting notches in the roach and at each notch surrounding the limb by a fillet of muslin. (Plate 2—D, D, D.) The untying of these fillets allows the greatest facility in inspection.

4. Provision can be efficiently made in compound fracture or where abscesses have been developed in

the progress of the treatment. A section can be sawed out from one seam almost to the other without seriously damaging the supporting power of the appliance. A hole can be punched at a point where a drain is desired.

5. If the swelling subsides so that the case becomes too loose, a mattress of lint or cotton batting may be laid in and the leg be again enclosed. This lining makes a pleasant addition.

6. The apparatus fits the limb so closely, so accurately is it applied to all the elevations and depressions, that shortening cannot occur. In the leg, the ankle and knee make the two points between which the fractured bone is extended, and when the fragments are adjusted, the limb is so completely encased in the mould that malposition is next to the impossible. The same security can be given fractures at any point in the upper and lower extremity.

TRANSLATIONS.

CLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY

JOHN A. WYETH, M.D.

EXTIRPATION OF ONE CEREBRAL HEMISPHERE WITHOUT DEATH.

M. Paul Bert exhibited to the Biological Society four animals (batrachia) in which he had removed one hemisphere. The operation had been made on two of them six months ago. No symptoms of interference with the circulation had been present. The animals were well and in good condition.—*Progrès Medical*, March 8, 1879, p. 183.

THROMBUS OF THE PORTAL VEIN—HÆMATEMESIS—INTESTINAL HÆMORRHAGE. C. LEROUX.

Patient æt. 48, male, admitted to the Lariboisière Hospital in condition of great prostration. Twenty-one months previous, in Jan., 1878, without any known cause, and without any disturbance of digestion, he was suddenly taken with a profuse hæmatemesis. Three other attacks followed in 1878, and in one of them a discharge of blood *per rectum* followed. For the last few days he had colliquative diarrhœa. Pain on pressure in the epigastric region; no ascites. Nothing apparently abnormal among the abdominal viscera. Slight mucous râles scattered throughout the lungs. Heart sounds natural, excepting anæmic *bruit* at base. Urine normal. Oct. 6, hæmatemesis recurred and patient died from syncope.

Autopsy.—Liver very small, pale, hard and creaks when cut, cirrhotic. Portal vein is completely filled with a whitish clot intimately adherent to the walls of this vessel to its bifurcation. This clot extends into the splenic, mesenteric and other veins. Spleen much enlarged. Pancreas normal. Stomach throughout three-fourths of its mucous surface presented a blackish ecchymotic appearance. No ruptured vessels could be found. No duodenal or œsophageal ulceration. Small intestine ecchymotic. Large intestine inflamed intensely. Kidneys normal. About half a quart of fluid in the peritoneal cavity.

The peculiarities of this case are striking. No ascites, no enlargement of the superficial abdominal veins, thrombus of the portal vein and hæmatemesis

leading to diagnosis of the gastric disease. *Ibid.*, p. 184.

TWO CASES OF FATTY PULMONARY EMBOLISM FOLLOWING FRACTURE—DEJERINE.

Patient, æt. 13, was run over by a street car, the wheel crushing the right leg. The extent of the hemorrhage was not known. The calf was terribly lacerated, and the tibia crushed, and some oily drops were floating on the slight amount of blood resting in the most dependent portions of the wound. The patient gradually sank and died three hours after the accident. The posterior tibial and peroneal arteries were divided and patulous. The tibia was split in its long axis almost to the articular surface. The vena cava ascendens contained little blood, leading D. to suppose there had been considerable primary hemorrhage. The venæ cavæ were ligatured and the heart and lungs removed. The blood from the right ventricle contained an immense proportion of fat. This was proven not only by microscopic but chemical examination; being soluble in ether and turning black on the addition of osmic acid. The pulmonary vessels were injected with fat, the arterioles, veins and capillaries holding emboli in vast numbers.

A second case is given with about the same history and results as the above in *Progrès Medical*, March 8, 1879, p. 188, and in the number for March 1st ten other cases are reported, and a series of experiments on animals proving that as a result of simple fracture there was very little or no fatty embolism in the lungs, while if the medullary canal was laid freely open as in compound and comminuted fractures the pulmonic circulation was clogged with fatty matter.

ALCOHOLIC HEMIANÆSTHESIA—DEBOVE.

Patient, male, æt. 50, habitually a drinker of brandy, entered l'Hotel Dieu on account of pneumonia, with delirium tremens. During his convalescence there was observed anæsthesia of the left side. This was treated and cured by the constant current (two small elements of Trauve) one pole placed on the forehead and the other on the dorsal surface of the left foot. A temporary sciatica followed the restoration of sensibility, which was restored after one seance of thirty-five minutes. The patient continued well; three years later when last seen.—*Ibid.* March 1, 1879, p. 161.

CRITICISM OF LISTER'S METHOD—DESPRÉS.

Before the Paris *Société de Chirurgie*, D. criticised severely the statistics of Volkmann, showing the efficacy of carbolic dressing, and said he considered them as practically valueless. Lister himself had practised 22 resections of the wrist. But he does not give the conditions which justified their operations. In France nothing is more rare than cases where resection of this joint are indicated. It was not a matter of surprise that such excellent statistical results should follow in cases where the patient was in all probability in such excellent condition that recovery was certain after an operation, which could have been avoided by conservative medication, and rest, with equal success.—*Progrès Medical*, March 1, 1879, p. 168.

THE HOSPITAL GAZETTE,

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EDITORIAL.

MEDICO-PHARMACAL HYBRIDS, AGAIN.

In the *GAZETTE* of the 3d inst., we sounded the key note of opposition to the prescribing performances of druggists. The better portion of both classes, in whose interests the views of the *GAZETTE* were then made public, have, as we anticipated, endorsed our assertions, and are rejoiced that a movement, called for, no less by a regard for the public safety, than the desire for excellence in either profession, has had a commencement. That abuses exist in the medical profession, and in the pharmaceutical, is well known, the daily press and the distorted voice of popular scandal keeping the truth in lively remembrance. That it is the proper sphere of medical journalism to frankly but guardedly hold these abuses to the public scorn, is our conception of the *GAZETTE*'S mission. Occupying an isolated position so far as commerce and commercial transactions are concerned, inspired only with love for the grand purposes of the profession, we have never faltered in our devotion, exposing its abuses, applauding its triumphs, without fear or favor. The approbation of kindred spirits and the prompt tender of their co-operation is our reward. With such motions, we deemed it proper to put the daily records of errors by incompetent medical practitioners, the whisperings of scandal in the same vein, into a form for aggressive movement against the agencies that produced these errors, and weighed down with reproaches, two noble professions. We classed them as medico-pharmaceutical hybrids, possessed of only sufficient knowledge in either, to make them intolerable in either; so devoid of honorable principles that they would approach to the shadow of the scaffold to gather a few pennies, and these animadversions were deserved.

There never yet has been a physician of great eminence, whose latter days were not clouded with recollections of mistakes, fatal mistakes, in his

practice, with a feeling of his own weakness and incapacity, and Pharmacy's most illustrious names recalls equally sad remembrances. The life time of the most devoted, of the most learned, with its achievements of skill, dies away in the clouds of regret, for ignorance and lack of strength. To comprehend the action of nature in the functions of the human body, in perfect health, and then in sickness; to determine the causes of imperilled life among the antecedent conditions, and to be able to divine hidden causes from uncertain and varying indications was too great a task for the ablest physician. His lifetime was too short for preparation. To analyze the known remedies, to unfold their values and properties, to encompass the secrets of the vegetable and mineral kingdoms has been the unfinished work of the most noted pharmacists. Our medico-pharmaceutical creature appears to want to usurp the double throne; to foist himself into the honors and rewards of both stations, to reach which in either has been denied to every one before him. To approach perfection in either has been proven impossible, to simulate its possession in both is the outgrowth of medico-pharmaceutical modesty.

We publish in this issue one from the many papers called forth by our previous editorial remarks, one that aims to be fair, and offers a justification. In order to do this last, the writer arraigns some of the medical profession upon a serious indictment; serious because the offense charged, if proven against them, betrays a depraved standard of morality, unfitting them for professional association. We have often heard the suspicion of this same charge, and call the attention of committees of discipline to this regular statement. Physicians live in glass houses, their lives and acts must be open, distrust must not be invited, and wrongs must be righted promptly. The Code of Ethics is the professional safe-guard, but it must be rigidly adhered to, that the honor and dignity of the profession may be sustained. From "druggist" and his friends, then, we request that facts to substantiate their charge be produced before the Committee on Discipline. From the committee we ask that inquiries to draw forth such facts be instituted. The profession demands this much.

We regretted exceedingly the justification attempted by "Druggist," the application of the intensely golden rule of commerce: "As others have done with you, so do ye to the first fellow that gives you a chance." The wording may not be exact, may be inelegant, but that comes from attempting to clothe commercial maxims in a scriptural garb. This justification reminds us of our young days; when we bore the fruits of our big brother's triumphs over boys smaller than himself, but larger than us. We

failed to see the justice of the rule then, notwithstanding we were frequently pounded. "Druggist's" suggested justification for the incompetent practicing druggist is the smaller boys performance, and had better been strangled at birth. It adds nothing to the glory of pharmacy, that its devotees compensate their losses made through greedy doctors' influence, by imposing worthless advice upon poor sufferers. We invite a careful perusal of "Druggist's" communication. It bears the impress of honest intentions, culture, and high mettle.

SELECTIONS FROM JOURNALS.

MEDICINE IN PERSIA.

The system of medicine in vogue in Persia is a pure empiricism. Diseases and remedies are divided into two classes—*hot* and *cold*; a hot disorder being treated by the administration of cold remedies and *vice versa*.

Diagnosis is not attempted; and if the ailment does not give way under the one class of drugs, the native practitioner simply tries the other. When the patient has obtained his prescription, he, after repeating a prayer, opens his Koran haphazard, and looking at the first passage to his right, or at some other part of the page that is previously decided on, he determines whether he shall act on it or not. Should the omen prove favorable, he swallows the dose, however large (a quart is a common quantity) or nauseous, in perfect faith, having previously fixed on a fortunate hour. This important point is settled by the astrologer, who is much consulted in this country, no important affair being undertaken without his advice, or commenced save at the particular moment that he may choose as fortunate. Prior to calling in the medical attendant, a list of the principal practitioners is gone through, and each one is tried with an omen, as described from the Koran, till he whose name coincides with some especially lucky verse is selected.

Charms written by dervishes (wanderers vowed to a mendicant life), and either the writing washed off into water and swallowed, or the whole taken as a pill, or some form of prayer or incantation are common; also propitiatory sacrifices, and, in case of the rich, money given to the poor or to holy men. If the disorder prove obstinate, the bystanders each prescribe a remedy more or less ludicrous; and, save in the case of the very rich, or until the patient is *in extremis*, the European practitioner is seldom called in.

Purging, principally by means of calomel, is the almost universal commencement of treatment; for the Persian, like the sailor, thinks little of medicine unless it be heroic. This is followed by bleeding to at least twelve or eighteen ounces. This latter is generally repeated several times. The hakim now leaves his patient very much to nature, prescribing merely *placebos*, such as syrup or violets or sugar-candy and water; and, as the Persian has a strong constitution, he often survives, the credit of the physician being in direct proportion to the violence and novelty of the remedies he has employed.

Besides the hot and cold classes of disease, an additional distinction is made into these of *hararet* (heat and inflammation) and *rootobut* (humidity). Bleeding and purging are the remedies for the former, but carried to such excess that they generally terminate the case; while large doses of quinine and powerful aromatics administered in wine, with warm infusions, are given for the latter.

The diet is carefully attended to, and particular things are forbidden, not so much from any harm they might do, but to give the hakim a scapegoat should his treatment fail.

The surgery of Persia is in a still lower condition, and this is owing partly to the inferior status of the *jerrah*, or surgeon, who is generally either a barber or a farrier, and partly to the great objection that the Persian has to all operations which result in mutilation; for amputation of the arms, feet, or hands is the common punishment of theft, and the mutilated person is considered infamous. Hence it is rare that a Persian of the lower class will consent to them, while the upper ranks of society are, of course, less liable to require these operations.

When amputation is performed by a native, the primitive methods observed in Europe before the invention of the ligature are in use. The limb is struck off by repeated blows of a mallet on a chopper, or short sword, or, in the case of a finger or toe, a razor, and then dipped into pitch or oil which is boiling. Lithotomy is frequently performed above the pubes, and is always fatal.

Chloroform is unknown, save by legend, and is called "spirit of insensibility," and is supposed to be possessed of the marvellous properties attributed to the "benj" of the "Arabian Nights." The administration of it is attended with danger, the medical officer to the residency at Bushire having narrowly escaped a pistol-shot from a tribesman on seeing his relative apparently put to death by the unknown drug.

The bone-setter is in better repute than the surgeon, and enjoys considerable popularity. He always informs the patient that his limb is either fractured or dislocated, and even should the injury be merely a bruise or sprain, he wraps it up in bandages smeared with yolk of egg; or, should he have diagnosed a fracture, with bitumen (*mum yai*), which latter is supposed to possess almost miraculous properties, and he keeps the limb in a state of perfect rest so long as the patient will pay for his visits. The results of this are limbs of various degrees of shortness and curvature, ankyloses, etc.; but by this mode of treatment the bone-setter has the credit with the simple of working extraordinary cures, and I have been gravely shown supposed united fractures of the femur and humerus after five days' bandaging. Splints are quite unknown, while compound fractures generally result in gangrene and death, though at times they are brought to what is considered a *successful* termination by the spontaneous separation by mortification of the distal extremity of the limb, leaving a useless stump.

During illness the chances of recovery of the patient are diminished by his being surrounded by numbers of friends and acquaintances, who smoke noisy water-pipes and continually drink tea and converse, never leaving him, day or night, until he

is either dead or convalescent. These friends consult with the patient, if he be in a state to do so, on the expediency of following his physician's treatment, and nothing is administered without the approval of a majority of the bystanders. As the disorder increases in intensity, so do the friends, neighbors, and passers-by increase in number, till, at the decease of the patient, it is no uncommon thing to find eighty people in the room and two or three hundred in the house.

Midwifery is in the hands of the Jewesses and old women. The patient is placed in a crouching position, sitting on her heels, with her feet raised from the ground by means of two bricks, while a handful of wood-ashes is sprinkled on the floor. The midwife and another woman proceeds to knead (*masser*) the belly and loins, and the patient is on no account permitted to lie down. The successful termination of the labor is supposed to be the result of gravitation. Should there be any presentation of an extremity, or of the cord, the midwife simply drags at it till something gives way. Of course, from this practice the most frightful results ensue, rupture of the womb being a common thing. The patient generally goes to the hot bath the sixth day after delivery and resumes her ordinary avocations. She suckles her child, with the idea of avoiding pregnancy, sometimes as long as three years.

Lunacy is not common. Idiots and harmless lunatics, being looked upon as persons of peculiar sanctity, are allowed to wander about unmolested, while the unfortunates suffering from acute mania are confined in dark cellars, manacled, starved, and beaten, till death soon terminates their sufferings.

Vaccination is not in favor; inoculation, or the direct communication of the disorder, by placing the patient in the same bed with one suffering from small-pox of the most virulent type, is the method pursued.

There are no medical schools; but, as a rule, some slight smattering of the methods of treatment I have noticed, if methods they may be called, is picked up by a son inheriting his father's practice, or a servant that of his master. Anatomy is quite unknown, and no such thing as a necropsy is ever permitted. The only works consulted are those of Hippocrates, Avicenna (called Abou Senna), and a few Arabic works of great antiquity. The social status of the *hakim*, or physician, is good, but the surgeon is generally of the same position as the barber. This latter enjoys the monopoly of dentistry, phlebotomy, and the actual cautery; he also cups and performs the operation of circumcision, and often is a bone-setter, while he generally pretends to a special knowledge of diseases of the eye and the treatment of venereal disorders, and drives a brisk trade in supposed aphrodisiacs and abortives.—*Brit. Med. Jour.*

THE THERAPEUTIC VALUE OF CROTON-CHLORAL.

In a very interesting paper read before the Ulster Medical Society, Dr. Riddell (*Dublin Medical Jour-*

nal, April 1879) reports his experience of the great therapeutical value of croton (butyl) chloral. He mentions first a case of severe paroxysmal headache ineffectually treated for many years by all the great guns of the *Pharmacopœia*, but cured by five grains of butyl-chloral twice daily and ten grains taken at night dissolved in spirits of wine and glycerine, with a little acid and syrup of orange to cover the flavour. The patient continues the five-grain doses at night, and now enjoys better health than she has done for years. Since that case, Dr. Riddell says he has used it largely—sometimes failing, sometimes relieving—till, by keeping an account of all his cases, it began to be clear which were most benefited by the drug. Since then, the number of cases relieved (some permanently) has increased. These cases are; headache in females arising from mental distress; those cases of headache frequent at the menopause—in fact, all those called neuralgic, except a few arising from internal mischief, are benefited, and in many instances cured. In that distressing species of neuralgia called *tic douloureux*, he has found it in many cases, acting like a charm. Of course, he does not include any arising from cranial or intercranial causes. He has tried it in neuralgia of the ovaries, but no good resulted. In insomnia, it is not so reliable as the hydrate; but in some cases, where the loss of, or inability to, sleep is accompanied by a weak or fatty heart, it is to be preferred, as it has no weakening effect on the central organ of the circulation. In one case of delirium tremens, where the circulation was very feeble, the combination of croton-chloral with digitalis had a wonderful effect, and it seemed as if the drugs could be given together in much smaller doses to produce the same results than singly. In this, he pushed it from ten to thirty grains every three hours, with drachm and two-drachm doses of the infusion of digitalis. In pain arising from caries of teeth, he has found it useless in most cases, and in all inferior to Richardson's "*tinctura gelsemini*"; but in one case, of a nervous young lady, by giving her two ten-grain doses, he was able to extract a tooth next to painlessly, to her great satisfaction. In these cases, it is in affections of those parts supplied by the fifth pair of nerves that it is of most use; but, to be of service, the drug must be given in far larger doses than prescribed in the *Pharmacopœia* for adults, five grains three or four times daily, gradually increasing if required; if stimulants be wanted, dissolve it in rectified spirit; if not, dissolve it in glycerine. In all cases complicated with hæmorrhoids, give glycerine. If anæmia exist, combine it with iron, or, what he believes better, arsenic; then gradually lessen the chloral. In all cases, he has found it better to give it in solution than in powder or pill. Dr. Riddell mentions also severe pain with photophobia and blepharospasm after injury, in which atropia failed, but ten grains of butyl-chloral repeated in an hour gave complete relief; and a case of acute painful facial carbuncle, in which the effect of ten-grain doses every three hours was "simply marvellous", the disease going through its subsequent stages almost without the patient knowing anything of the matter from the sense of feeling. This remedy is probably less used in practice than its remarkable anodyne powers deserve.—*Brit. Med. Jour.*

FATTY EFFUSION IN THE PLEURA.

Dr. Boichzold (Berlin) has published some interesting cases which he describes under the title of fatty dropsy of the pleura, and to these he has joined reports of a certain number of similar cases collected in Germany, from which he deduces the possibility of diagnosing cancerous degeneration of the pleura by the presence of a considerable quantity of fatty matter in the serosity which it contains. The presence of this fatty matter would appear to have a similar value to that of blood in the fluid of pleural dropsies. In the case observed by Dr. Boichzold himself, the patient was forty-four years of age and had suffered from no previous disease, but in September 1877 was taken with epigastric pain, constipation, and vomiting of grumous matter. There were considerable weakness, slight pallor, and yellow tint. The glands of the groins and armpits were enlarged. There was effusion of the left side of the chest up to the fourth rib. The thorax was dilated; the heart was pushed back to the level of the corresponding border of the sternum. On January 17th, the effusion had risen as high as the second rib, and aspiration was practised. Half an hour after the extraction of the serosity, a layer of about a millimetre in thickness, of pale yellow colour, was formed on its surface. Microscopic examination showed it to be due to droplets of fat, and that it contained the nuclei and remains of cells. Ether added to the serosity took hold of the fat and collected it in a layer of an equally greyish yellow colour. The quantity of fat contained in the exudation was estimated at 4.9 per 1,000. Similar results were obtained from a second and a third aspiration. At the *post mortem* examination, the left pleura was found thickly covered with white spots of a resisting consistence, varying in size from a pin's head to that of a grain of wheat. There was also on this side an effusion of about a quart of fluid rich in drops of fat. The right pleura contained similar nuclei, but without effusion. The medium part of the larger curvature of the stomach showed a nucleus of cancer, which surrounded on the other side the head of the pancreas and a part of the epiploon. The thoracic canal did not present any kind of lesion. Microscopic examination allowed the recognition of a carcinoma, with fatty degeneration of the cells pretty distinctly marked, and found also in the cancerous nuclei of the pleura. It is evident that these cells, after undergoing destruction had fallen into the serosity of the pleura. Moreover, in this serosity were found entire cells or the *débris* of cells. The mechanism of effusion of any active dropsical fluid would not always be the same. Quinke (*Archiv für Klin. Med.*, vol. xii) has, indeed, observed a case of rupture of the thoracic canal permitting lymph to be infused into the pleural and peritoneal serosity. This was not the case here, the thoracic canal being sound. Analogous cases has been related by Quinke, Lucke, and Friedreich. Dr. Boichzold concludes that, in doubtful cases, a relation may be presumed between the effusion of fatty serosity in the thoracic cavity and its cancerous or tuberculous degeneration.—*Brit. Med. Jour.*

HOSPITAL FORMULARY.

The following are standard prescriptions used in

the public institutions in New York. We shall give the complete list, giving this week mixtures, &c., for external use. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. Hart's Island Hospital, B. H. Bellevue Hospital), C. H. (Charity Hospital), Ins. As. Insane Asylum.)

MIXTURES, LOTIONS AND APPLICATIONS FOR EXTERNAL USE.

107. *Bell's Gargle.*

(GARGARISMA BORACIS.)

Sodii Biboratis.....	3	2
Fermenti.....	aa	1/2
Mellis.....	fl.	3 8
Aquæ q. s. ad.....		

Mix.

108. *Bowden's Injection* (O. D. P.)

R Zinci Acetat.....	grs.	10
Opil Vini.....		
Tinct. Catechu.....	fl.	3 2
Aquæ q. s. ad.....	fl.	3 4

Mix.

109. *Brodie's Liniment.*

R Acidi Sulphurici.....	3	1
Olei Olivæ.....	1	
Olei Terebinthinæ.....	1	

Add the acid *gradually* to the oil, stirring in a mortar. When cold, add the oil of turpentine and mix.

110. *Buck's Burn Mixture.*

R Pulv. Tragacanthæ.....	2	
Pulv. Acaciæ.....	4	
Syrupi Fuscii.....		
Aquæ bullientis.....	aa	1

Mix.

111. *Carbolized Collodion.*

R Collodion.....	fl.	3 1
Olei Ricini.....		
Acid. Carbolicæ.....	aa	fl. 3 1/2

Mix.

112. *Carron Oil.*

(LIME LINIMENT. LINIMENTUM CALCIS, U. S. Ph.)

R Olei Lini.....	7	
Aquæ Calcis.....	fl.	3 8

Mix.

113. *Churchill's Tincture of Iodine.*

R Iodinii.....	2 1/2	
Potass. Iodidi.....	1/2	
Alcoholis (75%).....	fl.	16

Mix.

114. *Churchill's Iodine Caustic.*

R Iodinii.....	3	1
Potass. Iodid.....	2	
Aquæ.....	fl.	3 1/2

Mix.

115. *Collodion flexile*

R Collodion.....	part.	50
Terebinthinæ Canad.....	"	2
Olei Ricini.....	"	1

Mix. All by weight.

116. *Corson's Paint* (O. D. P.)

R Olei Tigllii.....	fl. 3 ½
Ætheris.....	fl. 3 1
Tinct. Iodinii Co.....	fl. 3 2 ½

Mix.

117. *Emplastrum Capsici.*

(MCCREADY'S PLASTER.)

Spread adhesive Plaster with Oleoresina Capsici; leaving, however, a narrow margin all around free.—(Dr. B. W. McCreedy.)

118. *Glue Burn Mixture.*

R White Glue.....	3 7 ½
Water, cold.....	O 1
Glycerin.....	fl. 3 1
Carbolic Acid.....	fl. 3 2

Soak the glue until it is soft; then heat on water-bath until melted; add the glycerin and carbolic acid, and continue heating until in the intervals of stirring a glossy strong skin begins to form over the surface. When wanted for use, heat on waterbath until melted, and apply with a flat brush over the burned part.

119. *Linimentum Chloroformi* (INF. H.)

R Chloroformi.....	fl. 3 2
Linim. Saponis q. s. ad.....	fl. 3 2

Mix.

120. *Linimentum Chloroformi Co.* (C. H.)

R Chloroformi.....	fl. 3 2
Tinct. Opii.....	fl. 3 2
Linim. Saponis.....	fl. 3 1 ½

Mix.

121. *Linimentum Tigllii* (99TH ST.)

R Olei Tigllii.....	fl. 3 2
Olei Olive.....	
Olei Terebinthinæ.....	
Aquæ Ammonia.....	
Spiritus Camphoræ aa p.e.	
q. s. ad.....	fl. 3 2

Mix. S. Externally in chronic muscular pains.

122. *Liquor Picis Alkalinus* (O. D. P.)

R Picis liquidæ.....	3 4
Potassæ.....	3 2
Aquæ ferventis q. s. ad.....	fl. 3 4

Mix.

123. *Lotio Flava.*

R Hydrarg. Chlor. Corros.....	gr. 1
Aquæ Calcis.....	fl. 3 1

Mix.

124. *Lotio Nigra.*

R Hydrarg. Chlor. mitis.....	3 ½
Aquæ Calcis.....	fl. 3 4

Mix.

125. *Lotio Plumbi Co.* (H. I. H.)

(GOULARD'S, MODIFIED.)

R Liq. Plumbi Sub-Acet.....	
Tinct. Opii.....aa	fl. 3 1
Tinct. Arnica.....	
Spts. Camphoræ.....aa	fl. 3 2
Aquæ.....	O 1

Mix.

126. *Lotio Plumbi et Opii* (O. D. P.)

R Plumbi Acetat.....	3 1
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Tinct. Opii.....	fl. 3 2
Aquæ q. s. ad.....	fl. 3 8

Mix.

127. *McCreedy's Paint* (O. D. P.)

R Tinct. Aconiti Rad.....	fl. 3 2
Chloroformi.....	fl. 3 1
Tinct. Iodinii Co.....	fl. 3 2

Mix.

128. *Richardson's Styptic Colloid.*

R Acidi Tannici.....	2
Alcoholis Absoluti.....	fl. ½
Ætheris.....	fl. 2 ½
Collodion q. s. ad.....	fl. 12

Mix.

129. *Smith's Solution of Bromine.*

R Brominii.....	3 1
Potass. Bromidi.....	grs. 160
Aquæ Destill.....	fl. 3 4

Dissolve the bromide in about 2 fl. 3 of water, add the bromine, agitate, and finally add the remainder of the water. Keep the mixture in small glass-stoppered bottles.

Used externally in gangrene, etc.

If used internally, the dose would be 1-2 drops.—

(Dr. J. Lawrence Smith.)

130. *Sulphur Paste* (O. D. P.)

R Sulphuris Sublimati.....	3 1
Ætheris.....	fl. 3 3
Glycerinæ.....	fl. 3 1

Mix.

131. *Taylor's Lotion* (O. D. P.)

R Sulphuris Sublimati.....	3 3
Spts. Camphoræ.....	fl. 3 2
Sodii Biboratis.....	3 1
Glycerinæ.....	fl. 3 3
Aquæ.....	fl. 3 6

Mix.

132. *Tinctura Iodinii Bromidi.*

R Iodinii.....	grs. 128
Brominii.....	240
Alcoholis (94°).....	fl. 3 8

Mix.

133. *Tinctura Saponis Kalini* (O. D. P.)

R Saponis Viridis.....	3 2
Alcoholis.....	fl. 3 4

Mix.

134. *Tinct. Saponis Viridis Co.* (O. D. P.)

R Saponis Viridis.....	3 1
Alcoholis.....	
Olei Cadini.....aa	fl. 3 1

Mix.

CORRESPONDENCE.

A-SYMMETRY OF BONES.

1300 SPRUCE SS., PHILADELPHIA,
May 8, 1879.

Editor HOSPITAL GAZETTE.

DEAR SIR: In your number for April 12th, 1879, is a communication from Dr. Wight which would make it appear that I claim *for myself* priority in the observations as to asymmetry in the length of

the lower limbs. I thought I made my language as clear as it could be made. In the 4th count Dr. Wight does not quote me fully. My sentence opens, "I wish to make a claim, &c." I might have italicized the *a*.

Now I here distinctly disclaim any credit for the original observation, but I tell in my paper how the full surgical appreciation of the fact was recognized and valued by the Surgeons of the Pennsylvania Hospital.

In every thing I have written on the matter due credit has been given to Dr. Cox, whose observations by Dr. Wight's own showing *ante-date* his own.

Now as to the *new* facts, what the clavicle, which contributes to the breadth of the body, has to do with them I am unable to see. My edition of Hyrtl is dated 1853. I translate this from it, "Both the upper extremities are seldom of the same length. The difference is two or three lines in favor of the right. Laurent, Vitry and Noble found the *right clavicle* and the right humerus at times four lines longer than the left."

The *new* facts which I am interested in are those relating to asymmetry in the *length* of the opposite sides of the same human body and in the factors producing it. So far then as the legal case I reported is concerned the facts *were new*. Allusions to differences in the lengths of limbs and of bones are not infrequent in anatomical and surgical books, but I have been unable to find any thing like the original paper of Dr. Cox recording the *new* facts in a scientific manner, before he did it.

Very respectfully,

WM. HUNT.

"A DRUGGIST" ON COUNTER PRESCRIBING.

Editor HOSPITAL GAZETTE.

DEAR SIR: In the edition of the 3d inst., of the HOSPITAL GAZETTE you bring an editorial against counter prescribing, which contains much truth but does not point out the steps requisite for the suppression of this nuisance. This evil is a symptom of a disease both on the medical and the pharmaceutical body which is just as incapable of being abolished as any other pathological symptom, without removing the cause of it. And to show you the cause, is the object of these few lines. It is a well known fact that between certain pharmacists and physicians the humiliating practice is exercised, that the physician receives a recompense in proportion to the value of the prescriptions he "sends" to the pharmacist, thus creating a class of monopolists amongst the members of the pharmaceutical profession. So it cannot fail that the honest druggist, who does not join into this contemptible way of doing business, makes in 9 cases out of 10 the experience, that, if he refuses to prescribe himself and suggests to the patient to seek the doctor's advice, sees a couple of hours afterwards his customer passing his store with his hands full of medicines put up in one of the monopolist's store. On inquiry you receive the answer: the doctor has sent me to such and such a place because I could get it there better and fresher than in your store. The doctor has never in his life

put his foot in your store, he does not know you at all, but he does not fail to run down your business before your customers in order to secure "the few pennies"—the commission. What feelings must that create? Is it not human nature to learn to think after such experience, if this customer comes again to your store you will try your best to prescribe yourself for him? Is the doctor so selfish to damage your business on account of a few pennies, why should not you try to pay him in the same coin?

If physicians would break with this custom and allow every person to go where they like, then this evil would vanish to a great extent at once, so much the more as it would be beneficial to both branches of the profession.

Respectfully,

A DRUGGIST

NEWS ITEMS AND NOTES.

Treatment of Albuminuria by the Inhalation of Oxygen.—At a meeting, on January 8, of the Société de Thérapeutique, M. Dujardin-Beaumetz read a paper on a case of albuminuria in which the albumen had entirely and rapidly disappeared after some inhalations of oxygen. The patient had reached the last stage of the disease; every diuretic had been employed, but without success, when inhalations of oxygen were resorted to. The albumen disappeared within the following twenty-four hours, and had not reappeared since. Twelve days had elapsed, and the author wished to know if similar cases had been observed before, and if his treatment might be considered as attended by permanent success.

A discussion having been raised on the subject, it was remarked that similar cases had been known to occur, only the effect of the cure had never been permanent; the albumen generally reappears after two or more months.—*London Med. Record, March 15, 1879.*

Bavarian Dressing for Fractures.—The Bavarian Dressing has attracted considerable attention among the surgeons of the West, and is being extensively practiced in some of the more prominent institutions. We have been endeavoring for some time past to obtain reports illustrative, and now are under obligations to Dr. Crego, of Cincinnati, for his able assistance. We suggest a careful perusal of his report in this number of the GAZETTE.

Therapeutic Action of Iodoform.—Dr. Moleschott states that he has used iodoform with good result in the treatment of exudation into the pleura, pericardium and peritoneum and of the acute hydrocephalus of children. He generally applied it in the form of ointment (one in fifteen of lard) or with elastic collodion (or one in fifteen of collodion). Large glandular swellings were caused to disappear under the use of the iodised collodion. It was found useful as a means of assuaging pain in gout, neuralgia, and neuritis. Syphilitic myocarditis was cured by iodoform inunction, combined with the internal use of the drug in doses of from three-fourths of a grain to a grain and a-half daily. Iodoform appears to act like digitalis upon the heart, increasing the strength and reducing the frequency of its beats, and was hence used successfully in un-

compensated valve disease. Its action depends probably on its ready decomposition, by which the iodine in the nascent state is brought into action upon the tissues.—*Wiener Medicin Wochenschrift*.

Old-Fashioned Theses.—Our forefathers evidently took particular pains not to confine themselves to purely medical questions in their graduation theses, as may be seen from some of the following curious specimens of titles of theses, which were defended with great display of eloquence, in the fifteenth and sixteenth centuries, in Paris, at the Medical School, Rue de la Bûcherie. The answer to each question is affirmative. Does Venus beget and expel diseases? Are the plague and venereal affections of Divine origin? Is wine good for healthy individuals, as well as for invalids? Ought patients, sick with fever, to prefer a fish diet to a flesh diet? Has the plague been sent down from heaven? Has the moon any influence on the humours of the body? Do mineral waters make woman more fruitful? Are short women more fruitful than tall women? Is wine the milk of old age? Is Aurora the friend of Venus? Can a toad be begotten in a man? Is it healthy for old people to put themselves into a passion? Are heroes given to melancholy? And so on *ad infinitum*. Some of these must have been rather curious dissertations, and their medical treatment full of strange philosophy.—*Brit. Med. Jour.*

Communication of Syphilis by Toys.—At a late meeting of the Society of Public Medicine, in Paris, Dr. Galippe made a communication in which he related his observation of facts of transmission of syphilis through children's toys. The vendors in the streets and bazaars of Paris may be affected with syphilitic lesions of the mouth, and through the habit of practicing on children's whistles and trumpets in order to attract attention, may possibly transmit the affection.—*London Lancet*, March 8.

Victims of Duty.—The Municipal Council of Paris has just passed a resolution that a legitimate homage should be paid to those who die victims of their devotion to duty; and to this end have carried the proposition that marble commemorative tablets should be placed in the various hospitals and hospices of the city of Paris, upon which are to be inscribed the names of the physicians, surgeons, internes, externes, medical students, and of all other auxiliaries of the Assistance Publique who die victims of their devotion in the exercise of their functions.—*Gaz. Hebdomadaire*.

Harsen Prizes for Proficiency at Examination at the College of Physicians and Surgeons.—In consequence of the great increase in value of the Harsen Prize Fund, and in pursuance of an order of the Supreme Court of the State of New York for the disposal of the surplus income of the said Fund, in place of the three "Prizes for General Proficiency at Examination," there will be awarded henceforth ten Harsen Prizes for Proficiency at Examination, as follows:

Ten members of each graduating class will be selected by the method detailed upon page 22 of the said announcement, will each receive a diploma of "Examination Honors," and will be entitled to appear at a public competitive examination for the

said "Harsen Prizes for Proficiency at examination," which will be awarded in the following manner:

To the competitor proved first in rank, a *First Prize of five hundred dollars*.

To the competitor proved second in rank, a *Second Prize of three hundred dollars*.

To the competitor proved third in rank, a *Third Prize of two hundred dollars*:

and to each of the remaining seven competitors, a prize consisting of one-seventh of the available remainder of the income of the Harsen Fund.

N. B.—The Harsen Prizes for reports of the Clinical Instruction at the New York Hospital will still be given as before.

University College Hospital London, will be closed in August and September next to allow necessary alterations to be made in order to accommodate forty extra beds, so as to increase the clinic to two hundred beds, and at the same time permit of some long-needed Sanitary improvements.

Excision of Chancres.—Dr. Auspitz, of the Poliklinik, has tersely and clearly given the results of his experiments on the excision of hard chancres. Of thirty-four cases operated upon, thirty-two remained under observation, and of these thirty-two, eighteen healed without any hardness, and the remaining fourteen healed with hard bases. In three of the thirty-two cases roseola and other general symptoms were present before the operation; two other cases did not remain long enough under observation, and four others exhibited a dubious result. Of the remaining twenty-three, there were fourteen which healed without any hardness, and no constitutional symptoms were exhibited up to the time of last observation; the period of observation varied from four months to twenty. Of the nine cases in which hard bases were left, two showed very slight constitutional symptoms, while the rest showed well-marked constitutional symptoms. Less fully carried out experiments have also been made by Dr. Unna and Dr. Kölliker, and these have shown similar results.

Doctors' Bills.—At a recent meeting of the North-western Medical Association of Philadelphia, it was resolved that bills should be rendered when services were ended, or at the end of each month, and that the society endorse a financial agent, who should be employed by the year, on salary, to attend to collection of moneys and keep physicians' accounts when desired.

Deformities of the Upper Limb.—At the meeting of the Society of Physicians in Vienna on April 4th, Dr. Hauke presented a girl, aged nine years, whose left forefinger had attained a most extraordinary length, while the other fingers were normal. The metacarpo-phalangeal joint of this finger was exceedingly weak. Another interesting deformity was presented by Professor Heschl. This was a lad, aged sixteen, whose arms were perfectly normal from the shoulder down to the elbow, but, instead of the forearm, the patient possessed only two short conical stumps, which terminated respectively with five and three very small fingers. The boy could read and write, and was said even to excel in the latter art.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give the GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A LECTURE ON THE EXAMINATION OF THE GENITALIA AFTER LABOR AND THEIR IMMEDIATE SURGICAL TREATMENT.

Delivered at the Philadelphia Living-In Charity Hospital.

BY

ALBERT H. SMITH, M.D.,
Attending Obstetrician.

Member of the American Gynecological Society, etc.
(Reported for THE HOSPITAL GAZETTE.)

This evening I propose to devote my time to a consideration of the surgical accidents of parturition which require immediate attention and demand our best methods of treatment.

But first let me call your attention to the fact that some portion of the placenta may remain attached to the internal surface of the uterus and, becoming putrescent, give rise to hemorrhage, for we know that any thing remaining in the uterine cavity after the expulsion of the after-birth acts as a splint to keep the uterus uncontracted. Should you, under such circumstances, insert your hand into the uterus you will discover the existence of hemorrhage in the shape of coagula, which should first be removed and then the cavity of the womb should be thoroughly cleansed with antiseptic washes.

Occasionally you will meet with what is known as a "placenta succenturia," an abnormal, superfluous placenta which arises from vegetations of isolated portions of the chorion. Sometimes you may encounter two or three such abnormal growths, but, as a general rule, they are very uncommon, and you may enjoy a very extensive obstetrical practice without meeting with such a thing. When it does exist, however, it is likely to cause most profuse hemorrhage. Hence, if you meet with a tendency to flooding after labor and if, upon careful examination, you find the uterus firm and contracted and the cervical and vaginal surfaces presenting no loss of continuity, you should suspect the presence of this condition and at once remove it.

When I was a student of medicine and, in fact, for many years after my graduation, the fashion was to teach that no ocular examination of the genitalia was proper after labor, but that, on the contrary, the patient should be guarded against all such unnecessary exposure.

Now, although I yield to no one in my desire to honor all delicacy of feeling on the part of my patients, I do not believe that the woman can be found who would not rather have any accidental lesion of the parts discovered and treated then and there, *i.e.*, immediately after the conclusion of the labor, than that these surgical accidents should be allowed to remain unnoticed and untreated until the more or less serious symptoms to which they may give rise, necessitate operative interference.

Hence, in primipara, always make it a duty to make a thorough ocular examination of the parts after the placenta has been expelled, and in the case of a multipara do not hesitate to go through with the same process if you have the slightest reason to suspect the existence of any such lesions.

I regard this as an imperative duty on the part of every practitioner, for, I know from actual experience, that some fissures of the perinæum and vagina of a very serious character may otherwise escape notice. In its normal state it is a very easy matter to detect the difference between a smooth and a lacerated vaginal surface, but where, after labor, the vagina is puffed up and œdematous it may be very hard to recognize the existence of a tear by the sensation which it presents to the touch. Hence you should always have the parts illuminated by the light of a candle or by gaslight. Then, again, for the thorough detection of these rents and fissures you ought, in every instance, to introduce the first and second fingers of the left hand into the rectum and draw it forward and pouch it out and so expose the posterior vaginal wall laterally as far as the fossa at the tuberosity of the ischium, bringing the pouched surface well out beyond the vulva. This you can easily do and in this way, calling the eyes to the assistance of the fingers you can at once detect the presence of any lesion, if such exist, which requires your attention. At the same time you may see to it that no hemorrhoid, or fissure of the rectum be allowed to remain unattended to. This examination must, I say, be always made in the case of a primipara.

Where a laceration of the vagina thus discovered is too slight to demand operative interference, all that is necessary will be to wash the parts out thoroughly with a strong disinfectant solution.

I remember very well my first examination of the vagina after labor and how utterly astonished I was at the appearance of its mucous membrane. It looked more like a mass of beef's liver than any thing else, and seemed as though the slightest force applied would tear it through, but pressing my finger against it I found it firm and resisting. It really looked as if the whole bulk of tissue were making preparation to slough away. The livid appearance of the parts is produced, of course, by the immense amount of congestion present, from the steady advance of a tightly fitting head.

Indeed, this livid and congested mass is much more favorable for vital purposes than any one would imagine. Never do any of you be led into mistaking this almost habitual condition of the vaginal canal after labor for one of gangrene, for if you examine it twenty-four hours afterwards you will find that the parts have almost entirely regained their wonted appearance, if no loss of tissue have occurred.

In making such an examination as this the first thing that you are likely to see, if it exists, is a laceration of the perineum. This condition should be treated promptly and effectually. In the vast majority of cases the best results will follow if you bring the torn surfaces completely together at once, so as to keep out the lochia. But once have I failed in this primary operation. In that case there was no union at all—the surfaces gaped open on the

fourth day after I put in the stitches and the woman absorbed enough pus to bring on pyæmic fever. I must say that in that case the patient had but very little vitality. After the parts were brought together until the wound gaped open there was no soreness, no swelling, not the slightest evidence of the existence of any effort at adhesive inflammation; no fever until the seventh day, when the temperature suddenly ran up from $98\frac{1}{2}^{\circ}$ to 104° . But this was the only case in which good union was not secured, and therefore I say that in the great majority of cases if you operate at once upon a lacerated perinæum you will not only save your patient from great and lasting discomfort, but will also thus set aside the necessity of the performance of the secondary operation which is more serious and always tedious.

The primary operation is very simple. You can easily etherize your patient and you will find her very willing to undergo it as a part of the labor process. I am quite sure too that you will derive better results from the primary than from the secondary operation.

It is customary to divide lacerations of the perinæum into three classes, viz: (1) lacerations simply of the integuments; (2) lacerations through the perinæal body to the sphincter ani; and (3) lacerations completely through the sphincter ani and into the rectum. These last are fortunately very rare. As a general thing, Nature seems to guard against this occurrence, and the tear, if serious, takes a course round the sphincter so as to almost dissect it out. If the sphincter ani is torn and gapes the patient is placed in the wretched position of having lost all power of holding her fæces and her wind, and they escape at pleasure, rendering her the most unhappy of women.

I advise you to sew up all kinds of lacerations, for wherever you have cicatricial tissue there you have pain.

Having brought you thus far, I wish to call your attention to the various methods of putting in the stitches in this operation, and to tell you why I think one way is better than the others. The old method was to pass the stitch through the integument on the anterior edge of the tear and bring it out on the lacerated surface, and carrying it over to the other side to bring it out there in the same manner.

I have rigged up this little arrangement on the black-board for purposes of demonstration, and have sewn a v-shaped piece of red flannel on this white back-ground, which will, I think, give you a very tolerable idea of the shape of the lacerated surface.

The effect of the old method as I have just described it to you, was to make a pocket behind the stitch in which the lochia would collect, and so interfere with perfect union of the sides. In point of fact, the old method simply re-unites a part of the lacerated surfaces. I advise you never to put your stitches in in that way, and I will give you reasons for my advice.

In order to be prepared for such accidents, you should always, particularly in country practice, carry with you the necessary instruments for sewing up the perinæum. For this purpose you want, in the first place, needles. In sewing I use a long Baker-

Brown needle, which Mr. Kolbè has made for me, with an eye at the end in which the wire loop is placed when you are ready to place it in situ. This needle is called the Baker-Brown needle because it was first invented by the London surgeon of that name. In New York they occasionally call it the Peaslee needle; why I know not. This needle is one of very great value and usefulness.

You may use this needle permanently fixed in a handle, or you may prefer needles which are not attached to a handle, but which can be used by grasping them with a needle-holder, the best form of which I here show you with a Russian clamp, which renders the grasp of the holder very powerful.

Many prefer these separate needles because they are smaller in thickness than the ones with permanent handles, and because, if one of them should be broken, you can very easily replace it.

In addition to a supply of needles, you should have a pair of bull-dog forceps, a tenaculum, a pair of scissors, and some good stout silver or iron wire. Or you may use some silk thread, or, if you can get such an article, some reliable cat-gut. All these things can be packed in a very small space.

I hope that, if you guard the perinæum, as I have directed you, by support and lateral incisions when needed, you all will be so careful in your management of labors that lacerations will be very rare occurrences, but I will not teach you, as I was taught, that the accident when it does happen covers you with opprobrium, so that you shall be afraid to acknowledge the true state of affairs, and rather let your patient go on from bad to worse than make a confession. I say this because I know that the accident may and, in fact, often does occur in the practice of the very best obstetricians.

Before performing the primary operation you ought to see that the torn surface has been thoroughly cleansed. I told you, you will remember, to use carbolyzed hot water for this purpose. Be very careful, however, if you find the rent is large enough to need sewing up, that you do not use so strong a solution of the carbolic acid as to destroy the vitality of the parts. You know that you can never get any union between two cauterized surfaces. Always employ a douche of hot water before putting in your stitches, for it stimulates the parts, and so hastens the healing process.

I have seen surfaces that looked for all the world as if they were going to slough, immediately improve most markedly in appearance under the use of hot water. Certain it is that the stimulation of the tissues produced by the hot water increases tenfold the chances of rapid and satisfactory union.

Before you proceed to put in the stitches be careful to place a sponge well up against the mouth of the cervix uteri so as to prevent the blood and other discharges from getting between the stitches and so interfering with union, and take very good care to withdraw this sponge when the stitches are all in situ.

Now the books all tell you to make the first stitch below. I always put in the first stitch above, making that stitch draw thoroughly together the margins of sound tissue above the laceration.

In one of my cases the recto-vaginal septum was

so thin that the needle could not take hold of the tissue. Now it is very easy to see that if your first stitch is passed through such thin tissue as this it is but too likely to tear out or to ulcerate through into the rectum. So always pass your first stitch through the thick and healthy tissue where you know it will hold, imbedding it completely. Then pass the other stitches and imbed them all as much as possible in the tissue. I believe I forgot to tell you, when I was discussing the various methods of making a stitch that I always take pains to imbed the wire all the way around in the tissues, so that when I draw the ends of wire together there is no pocket left behind the stitches. I pass my needle in close to the upper angle of the laceration and past it, entirely round to the other side so that it does not come out at all, except at the extremity of the suture, then I take a very long wire and pass it through the eye of the needle and draw the needle back. Having, now, one stitch in the strong and unlacerated tissues, I gain a support for the tissues below, a sort of breakwater which protects the lacerated surface from the lochial discharges. Then I put in a second stitch. Sometimes the recto-vaginal septum is so thin as to render it utterly impossible to prevent the needle from coming out now and then on the surface.

Then you are advised by the books to tighten up the lowest stitch first. I advise you to tighten up the highest (*i. e.*, the first) stitch before you touch any of the others, and I think you will understand perfectly why I say this. If you tighten up the stitches from below upwards the blood and other discharges will constantly be flowing down over the lacerated tissue and will fill up and bulge out all the little puckerings and crevices formed when the lowest stitch is tightened and so you will have union interfered with; whereas, if you tighten up the highest stitch first, it will protect the tissues below and no blood can fill up the crevices, and then all you have to do when you come to the other stitches is to wipe off the raw surface and tighten the next lowest stitch and so on until all the stitches are secured.

Thus you will have brought together the whole surface of the lacerated tissue, so that when the plasmic material is thrown out there is no portion of raw surface not in contact with some other portion.

One of the advantages of the Baker-Brown needle is that it makes a track larger than the wire, and so you withdraw it very nicely, and even when the recto-vaginal septum is very thin there is less chance of the wire lacerating into the rectum and giving rise to a recto-vaginal fistula.

As regards the method of fastening the ends of wire together after the stitch has been tightened up, some are in the habit of merely twisting them together, while others clamp them with shot. Perhaps the majority of gynecologists employ shot, but for my own part I cannot see that this practice possesses the least advantage over the simple twist. If you use cat-gut you must employ shot, and moreover you must have very large shot, as that furnished by the instrument-makers does not possess a large enough perforation for the passage of two thicknesses of cat-gut.

Cat-gut, by the way, is a most excellent material to use for the stitches if you can only get some gut which is reliable and which will retain its consistence long enough to secure primary union. But never depend upon cat-gut for making your first stitch, if it be very high in the vagina, for the tension will become too great for the dissolving gut to withstand. Cat-gut is only of service where the strain is not great, and where it can rot and so save you the necessity of removing the stitches—an operation quite painful to the woman. Patients have a great terror of the removal of the stitches.

If you employ silk, be sure to cover it well with wax or paraffine. But after all there is nothing like thin wire. The finer the wire the less danger is there of its cutting. Cutting is always dependent upon the size of the surface. I have seen a fine iron wire pull the shot bodily into the tissue without cutting the tissue in the least itself. The best results are obtained from the finest wires.

With regard to the dressing needful after the stitches have been properly secured, I generally use some emollient ointment—such as cosmoline.

The patient must be carefully catheterized for forty-eight hours after the operation to prevent the urine from running over the wound. Some German surgeons say that this is not necessary, and do not even employ the catheter after operations for vesico-vaginal fistula, but I see no reason why I should change my old habit. But perhaps the nurse may not know how to use the catheter. In this case I advise you to provide yourself with one of Goodman's self-retaining catheters. This instrument I have used even when the nurse could use the catheter. It is particularly valuable when the meatus urinarius is hard to reach. The gum tubing connecting the self-retaining catheter with the vessel under the bed should run *over* and *not under* the thigh. If it runs under the thigh the catheter rests on the stitches, and so by its continued pressure may do some injury; whereas if it runs over the thigh the end of the catheter is lifted off the stitches.

After introducing the catheter the legs should be bandaged tightly at the knees, and the patient should be placed in bed. The after-treatment is very simple. A vaginal douche should be used at the end of twenty-four hours, and the canal should be washed out with carbolyzed (weak solution) warm water.

I generally leave the stitches in as long as I can. Patients are always nervous and want to have them taken out, but I never remove them under five days, and if they can be left in for seven days I am all the better pleased. If you take the stitches out prematurely, the parts, which are beginning to unite, may gap again.

In regard to the treatment of vaginal furrows all that is necessary usually is to wash the vagina out with a strong solution of carbolyzed hot water. If the bleeding is obstinate, however, you may be obliged to put in vaginal stitches, imbedding them, if possible, at the rate of about five to the inch, to stop the hemorrhage and cause union, thus preventing cicatricial bands.

Incisions of the labia I am in the habit of cauterizing with pure carbolic acid, so as to prevent septi-

cæmia, for you know that a cauterized surface cannot absorb putrescent materials. In speaking of labial incisions I refer, of course, to those made for the prevention of perinæal laceration. I have told you that these incisions were first systematically used in this country in the Woman's Hospital in this city, and it is the custom there to bring these incisions together again by stitches, only remember that if you put in stitches you must not apply the strong carbolic acid. In only one case in my practice have I found it necessary to sew up these incisions with sutures.

With reference to lacerations of the cervix uteri, although they are often unavoidable accompaniments of labor, I have thus far had no experience in their immediate treatment. At the Woman's Hospital my friend, Dr. Anna E. Broomall, proposes uniting the torn lips immediately by cat-gut sutures. As there is no tension of those tissues after union, I see no reason whatever why she should not succeed perfectly with the cat-gut. The condition of lacerated cervix calls for one of the most serious operations in gynæcology. For unless it is properly treated there is the pouting of the cervix, and all the attendant constitutional disturbance first pointed out by Dr. Emmet, of New York. I see no reason why the primary operation should not succeed. I have not yet heard the results of Dr. Broomall's method of treatment.

If you find hemorrhoidal masses projecting from the anal surface after labor, be very careful to restore them at once when the rectum is widely distended. If restored at once they give rise to no trouble. Pass them in and hold them there until they show no tendency to prolapse again. If left out they become tense and inflamed, and give rise to great agony on the part of the patient.

ORIGINAL ARTICLES.

FUNCTIONAL HEART TROUBLES.

(A Paper read before the New York Clinical Society, at the Annual Meeting, April 25, 1877.)

BY
CHARLES KELSEY, M.D.

Mr. Chairman and Gentlemen:

In looking over my case-book I have been struck with the similarity in some of the essential features of the following cases which have been under my care within a short time of each other, and it has occurred to me that possibly by grouping them into a connected narrative certain general rules as to the treatment of a not uncommon and I believe increasing trouble might be deduced.

They are variously headed—some simply as nervousness, some as spinal irritation, and some as functional derangement of the heart, but I will try and relate them to you in a way not so minute as to be tiresome or as to conceal their general similarity, and we can name them afterwards, if necessary.

CASE I.—A young professional man, age 24, unmarried, and of nervous organization, had always been strong and well up to a few months before the time of his coming under observation, and had rather flattered himself on the

amount of work, mental and physical, which he was able to do. Had lived plainly, and was given to no excesses. For a year back, however, he had taken to smoking and, like most men of his stamp, had at once carried it to excess, reaching fifteen or twenty cigars a day, with innumerable cigarettes between. Added to this, he had been working very hard, sleeping irregularly and not enough, and spurring himself on with coffee late at night. It is not surprising that trouble came, but the manner of its coming was peculiar, for without any warning sufficient to attract his attention, he was seized suddenly one morning, after a partial night's rest, while on his way upstairs, with a violent commotion about the heart and a sense of utter prostration and weakness, which compelled him to lean against the wall for support, and slowly make his way back to his bed.

Physical examination failed to show any sign of organic disease and the treatment was plain enough, and in a good degree he followed it. But the heart for many months did not recover its former strength, and any unusual physical strain or sudden emotion would start it into irregular action, though otherwise he was entirely well. Now it is only on great provocation that he is conscious of any trouble; but still the tendency is there, and a little too much smoking, or irregular living, will remind him, as he says, that his heart is his weak point.

CASE II.—Lady, age 21, single, a person of strong will and mental power, and not at all subject to the usual influences of city life, which are supposed to cause so many of the troubles of fashionable people. For a year back has suffered more or less from coldness of the extremities, shortness of breath, palpitation of the heart, sleeplessness and loss of appetite and flesh, and has been under the care of the family physician for what he finally rashly called "nervousness," an insinuation, as she considered it, against her strength of mind and will, which put to flight all her confidence in his skill as a diagnostician.

These premonitions finally culminated in a fainting fit while at table, and from that moment she rapidly passed from bad to worse. Utter sleeplessness, great disturbance of the heart action, complete loss of appetite, emaciation, prostration and delirium followed each other in rapid succession until the condition became truly alarming. I wish I could picture it to you as it is pictured on my own memory. The nights were spent in sleepless quiet, only broken by her occasional starting up in bed in terror at the slightest noise in the house or street, or even a movement of a heavy body in the next house. During the greater part of the day she lay quietly in bed, too weak to sit up without faintness or to enjoy any efforts made for her amusement; the dreary monotony only broken by the almost futile attempts at regular intervals to induce her to take a little nourishment.

Later in the afternoon there came a change, and she declared herself as feeling better and would be helped to a neighboring sofa for a rest, where she would lie, talking and cheerful, the excitement of her voice and manner gradually increasing until suddenly, with a merry laugh, she lapsed into a fit of hysterical delirium. While this lasted she was again put to bed and

gradually became quiet, and another sleepless night began. For days this unvarying programme was repeated.

The action of the heart was peculiar, showing itself on the slightest muscular exertion or mental excitement—at first by a slight quickening of the respiration, which gradually but steadily became more and more rapid, until after two or three minutes there came a long-drawn, gasping sob, and the patient sank away into partial unconsciousness, attended with slight spasm of the hands and a change from the full bounding beats of the pulse to an irregular flutter. After a minute or two the unconsciousness passed away, and she was once more herself, only very weak and exhausted. These attacks were repeated more or less frequently, sometimes half a dozen times in the day and night, and though gradually growing less frequent as her health improved, were among the last of the symptoms to disappear. Another point about them was that they could be produced at any moment by giving the smallest quantity of stimulant—even the alcohol contained in a twenty drop dose of a tincture—and constituted an insuperable obstacle to this line of treatment. I distinctly remember the intense excitement caused by a wine-glassful of English ale, and this is the only case in which I have ever seen the delirium of chloral caused by a single dose of twenty grains and stopped by another of the same amount, which produced sleep. For six weeks, as near as I could discover, she scarcely slept two hours in succession, and often was not asleep for forty-eight, the time when she ought to have slept being passed in a state of perfect physical quiet and exhaustion and great mental activity; as she expressed it, "all asleep except her thoughts." I never, by the most careful examination, could make out any physical cause for the nervous irritation from which she suffered, and there certainly was no organic disease.

Suffice it to say that the case was a very long one, resisting all of the usual medicinal remedies for nervous exhaustion, which, indeed, I finally abandoned as doing more harm than good, and only yielding to time, rest, and change.

CASE III.—A strong, vigorous man, aged forty-three, of active business habits; married and accustomed to the use of tobacco and liquor in moderation, but given to no excesses; had always been well until about a year before coming under my care, but during this time had been much absorbed in business and almost constantly in a hurry. Accustomed to having his body answer readily to any calls he made upon it, he never spared himself. He traveled much, and if a train went before breakfast, that was the train for him, or if a horse-car passed the corner while he was in the middle of the block, that, and by no means the next one, was his car. Eating irregularly, sleeping when convenient, and smoking vigorously, he went on for nearly a year, suffering only from occasional severe headache and derangement of the heart action, with dyspepsia, but not particularly troubled about himself. Then came the collapse; and while sitting quietly at his desk one morning, anticipating no evil, he was suddenly smitten with unconsciousness, feeling "as though the heavens and earth were coming together and he

was between them." Those who were near him noticed the deathly pallor of his countenance. After two or three hours of semi-unconsciousness, he recovered sufficiently to start for his home, in the country, but had another similar attack on the way. From this time for nearly a month he could give but an uncertain account of his own condition: knows he was out of his head part of the time, and traveled around some, and was brought home. He had occasional attacks of dizziness, lasting a few moments. His mental condition had improved so that he was able to resume his business, but suffered from severe basilar headache, sleeplessness, and great irregularity in the action of the heart, with a constant foreboding of evil. At this time he came into my hands. Physical examination revealed nothing, and it was almost impossible to make him believe that such a train of symptoms could have come from so slight a thing as having worked too hard; but a few weeks of proper living convinced him that he was on the road to recovery, and now his own account of the exact regularity of his daily habits is very amusing. There is nothing in business so important that it cannot wait for his meals, and trains before breakfast no longer interest him. He takes time to sleep and time to rest, and is as well as he could desire.

CASE IV.—A gentleman in middle life, an Englishman, and the head of a large manufacturing business. For several years, according to his own statement, has been doing the work of three men, and has finally broken down and is threatened by his physicians with softening of the brain. He has therefore given up his business entirely, and after spending six months on a yacht in the Mediterranean where he could rest, has come to America for the same purpose, bringing his doctor with him, who scarcely leaves him for a moment, and whom he consults as to the propriety of all the minutiae of his daily life, from the time of his rising in the morning till his retiring at night. I first met him socially in a company of ladies and gentlemen who were told that he was a great invalid and must not be disturbed by any noise or excitement; and was struck with the air of longing with which he listened to the music of a piano for a few moments, and occasionally joined in the conversation. But he soon found the excitement too much for him and went to his room, "to be quiet," inviting me to go with him. I went, and after producing a segar for me but abstaining himself, on the plea that he was "afraid for his head," he gave me the history of his case—as plain a history of functional heart trouble and as devoid of any symptoms pointing to his brain as could be well imagined. When I humbly ventured to tell him so he sat for a long time in silent thought and finally broke out with "By George, I believe you are right! I always told them my trouble was in my chest, but they were determined I should have softening of the brain, and I supposed they must be right," and then he seemed a little afraid lest even this outburst of excitement, the first apparently, which he had allowed himself for a long time, might bring on the dreaded disease, which was never out of his mind.

The next morning he eluded his physician long enough to have a consultation with Dr. Clark, and

soon after dispensed with him altogether. A few weeks spent in travel and relief from the spectre which had haunted him so long, and he was once more at the head of his business, doing one man's work instead of three, he wrote me, but doing it well, and never in better health in his life.

CASE V.—A man, aged thirty-eight, married; filling an important public position, and given to no bad habits. So far removed from what would ordinarily be considered a man of nervous temperament, and would at first strike one as exactly of the opposite type, weighing nearly two hundred; a good liver, and having a calm, contented air; as though he were in the habit of taking life easily, but in reality not so.

For some time past has not been well, suffering from certain nervous attacks, which he himself describes very accurately. The one which he related to me on his first visit, will serve as a type of nearly all of them.

While sitting quietly in his room one Sunday morning feeling as well as usual, he was roused by the noise made by his little girl, who had been shut into her room for some trifling misbehavior, and had begun a bombardment of the door with her feet. Rising, he stepped to the room to tell her the noise must cease, and in the act felt a sudden stoppage of the heart, a catching for breath, and a sense of impending danger, which lasted a few moments and left him weak, troubled and nervous. Complaints of many such attacks; has them during the day when a messenger approaches him suddenly with a letter; or in the night while sleeping quietly will be awakened by a profuse perspiration and the violent action of his heart beating against his chest. Often feels his pulse at such times, and finds it regular but full and strong. At such times cannot free himself from a sense of foreboding and imminent danger, and is much troubled by the thought that he may be about to break down and be compelled to give up his business, if nothing worse.

The case was puzzling, not so much from its nature, which was plain enough, but from its causation, which was by no means easy to discover, with every facility offered me by the patient.

Had the man been an excessive smoker it would have been plain, but he never smoked. Had he been a man of different build and irregular in his habits I should have thought I knew where to begin treatment, but he seemed to live regularly enough, and did at least as well as he knew for he was very anxious to be well, nor did he profess himself troubled in business matters, and was not overworked, and seemed a man not to worry unnecessarily. He took a fair amount of outdoor exercise, at least as much as many men who are well, and as I often told him *he ought to be well if he was not*. He had tried many doctors, and had taken much medicine, but had been nearest well while at Vichy and at this point treatment was begun—to try and reproduce Vichy in New York, alkaline waters, great regularity in all his daily habits, and regulated out of door exercise was the commencement and finally by his aid I was enabled to do what I much desired, see him in one of the attacks, while he lay on his bed prostrated, his heart beating like a trip hammer, his body covered with perspiration, and his limbs occasionally twitch-

ing spasmodically. This one had been caused plainly enough by a day of great business excitement and worry.

Later he had another severe one caused by drinking several cups of cold tea for lunch on a hot Summer day, and then driving out. His horses became a little unmanageable; he had an exciting pull with them; stopped on his way home, and drank another cup of cold tea, and then ended the day with a similar attack.

After that the causation was plain enough and once being found the remedy was not far to seek, and by careful attention to minute details he soon began to mend.

CASE VI.—A lady, delicate, married and at the change of life, for sometime back has been in rather unusual good health for her, but was taken down suddenly and without apparent cause. Weakness, prostration, sleeplessness, loss of appetite, and violent action of the heart. Pulse rapid but regular, for days at a time marking a hundred and ten or twenty and without any corresponding rise in temperature.

Often had fainting fits on the least exertion, such as sitting up in bed, and though never actually losing consciousness at such times, had a feeling of apprehension and approaching dissolution very hard to overcome. Was troubled with slight cough, and pain on swallowing, and stomach irritation, but a careful examination by Dr. Leaming failed to discover any disease of the chest.

In spite of treatment sank steadily from worse to worse for a certain length of time with increase in the severity of all the symptoms and then slowly began to mend, and to gain in flesh and strength till she was well.

The attack was probably caused by the shock to a weak nervous system, of the sight of the sudden death of an old servant by hemorrhage.

CASE VII.—Lady, age 32, single.—When first seen was in a state of complete nervous exhaustion, trembling, hysterical, and in great excitement. Had been suffering for nearly two years with symptoms of nervous prostration, the least exertion or excitement started her heart into painful activity, she slept poorly, had no appetite, had become very thin and weak, was sure she had womb trouble, and had about given up hope of ever being well.

An attempt at physical examination was abandoned on account of her extreme weakness and excitement, the slightest touch of the hand upon her abdomen causing a convulsive shuddering which was uncontrollable. No uterine or ovarian trouble could be made out, in fact she had already been examined by Dr. Thomas without any being found, and the patient was placed flat on her back and kept there for two months.

The conditions were exceptionally favorable for this treatment, it being Summer and the house deserted except by herself and the servants; and she was systematically fed, rubbed and galvanized back into health on the plan of Wier Mitchell, being an entirely different person by the time her friends returned in the Fall.

We have here a group of cases—for I believe they may with propriety be grouped in one category, notwithstanding their differences—in all of which there

is one prominent symptom, an over-action of the heart without organic disease. Four of them are males, and three of them females; and in all of them the disturbance of the heart was amongst the first of the symptoms, in some of them the only one, attracting attention, and not the result of a previous weakly and nervous condition. In all of them I think it may be spoken of as the focus of the malady, the thing causing the most discomfort, and hence I have come to consider them as cases of functional heart trouble, and to speak of them as such, though recognizing them under all their various titles of nervousness, nervous exhaustion and spinal irritation.

It is what Richardson may with propriety, perhaps, call a disease of modern life, and perhaps also peculiarly of American life, for they tell me the trouble is by no means common on the other side of the water, and the case of the gentleman with the threatened softening of the brain would seem to prove as much, for he certainly had good medical care, if not the best, both in England and on the Continent.

It may have its birth in our peculiar American mode of life, our hurry and worry, and unsparing zeal in the strife for wealth and position, and is closely allied to another trouble which first manifests itself in a failure of the brain-power. Indeed they may be combined as in Case III., but I do not know that the one has any tendency to merge into the other. They generally are distinct from the first and remain so. If the heart bears the burden of the strain so much the better for the patient, for his brain will probably escape.

I would especially call attention to the suddenness with which, in some of these cases, the affection manifested itself, the patient dropping at once from a state of comparative health to one of complete prostration.

That there were warnings of approaching trouble which might have caught the eye of a physician I have no doubt, but the fact that they were not sufficient to induce the patients to seek medical aid shows how slight they must have been.

Perhaps the most troublesome of all the symptoms is the ever-present foreboding of evil, the sense of approaching calamity, which cannot be reasoned away. I have found it useless to explain to these sufferers the difference between organic disease and functional derangement. I have never done more than make them believe that I saw no danger, but in their minds the fear will remain. There is but one way to overcome it and that is to cure the complaint. As the attacks grow less frequent and the patient gains more confidence in himself the dread will wear away, and not till then; but to make them understand that so much trouble may come from an affection not at all grave in itself is generally impossible. And now a few words as to treatment. I know of no affection in which the uselessness of trusting to drugs is more strongly marked. A physician may run through the whole range of tonics, nervines and anodynes, and see the patient steadily grow worse under his hands. I have sometimes thought that in women the disease has a certain course to run, at first from bad to worse, till a certain point of prostration was reached, to be fol-

lowed by a very slow and gradual improvement; and I have never been convinced of the power to arrest it in its downward course, though after the lowest point is reached recovery may certainly be hastened. The danger is, lest in desperation, medicines be unduly multiplied, for it does seem as though tonics ought to give them strength and anodynes bring sleep, but they sometimes will not. Personally I have learned much of the art of not giving medicines from these causes.

The treatment must be more radical than this and simpler.

There are certain classes of people to whom these troubles do not come. A farmer in the fields or a woman leading the simple healthy life of a country village will live and die and never wake to the unpleasant consciousness of having such a thing as a heart or a nervous system, and to these we must look for our models. So that when a man comes to me now complaining that his heart is out of order, and after a certain amount of questioning I find that he has been speculating in Wall street, or sitting up late and eating and drinking irregularly, or has been worried in his business and overworking himself; I involuntarily run over in my own mind some of the differences between him and the life he leads and his malady, and the man who in his rugged, simple, out of door life never thinks of his heart, or has occasion to; and when a radical blow has been struck at these differences a step has been made toward a cure.

It is useless to try and prop a man up in this mode of life, or to strengthen and calm a nervous system suffering from this strain while the strain continues. Better strike at once at the mode of life itself as the cause of the malady. Of course this is the most difficult kind of treatment, for these men will one and all say, I cannot give up my business nor can I change my mode of living, and what they want is some convenient medicine which will enable them to go on in the same way. But a distinction must be drawn between business and worry, between work and care, for it is the care and worry which do the evil and not generally the work, and in most cases the man will be the better for a certain amount of legitimate work if it can be separated from the things which worry him.

Speculation, risk, the casting of fortune on a single turn of the market, the venturing of all on a single chance is what wears out these men—and this is not business. If it is, then business must be given up. And when I am asked if this is necessary, if a man must rest, as these men understand rest, the abandoning of all occupation and going away, I take these things into consideration in the answer.

After that the cure will lie in simple habits of life, proper attention to all the details which make up the sum total of health, and not much in drugs. There is no rule which will cover any two cases—each must be cured by itself, but it is worth remembering that with a heart which has once begun this spasmodic action after a time a sort of habit is acquired, and a little thing which would not cause a flutter in a healthy man may be enough to start it in its disagreeable palpitations. A glass of wine, a cup of coffee or tea, a late dinner, or a little too

HOSPITAL RECORDS.

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(Reported for THE HOSPITAL GAZETTE.)

much tobacco, things which would escape notice are enough to do the damage.

In women the treatment is even more difficult, and before one of these cases a doctor may well stand aghast, unless he is prepared in a way which (until justified by the results) may seem ruthless to make an entire change in the mode of life. For these are the women who are always "miserable" and never "strong," who spend their substance on one doctor after another, and finally settle down upon some favorite water-cure where they receive more or less benefit, and in which they pass a part of each year. But they seldom receive any radical treatment, and their lives never approach in daily routine the lives of the women who are *not* miserable and *are* strong.

The problem is simple—given a human organism which is functionally out of order, how soonest and best to set it to running properly. It must be controlled absolutely; it must be as clay in the hands of the potter to be moulded into health.

We have certain plain facts to guide us. We know, for instance, that a person cannot be well without a certain amount of nourishment, therefore see that the nourishment is taken. The same with exercise or rest as may be indicated, and with all the minutiae of every-day life. If this can be done, there can be but one result—health.

But I know of no task more arduous and unsatisfactory than to attempt to carry out any such line of treatment in a patient's own house, and surrounded by her friends and relatives, where each step is watched and explained and criticised, and sure to be followed by the ever-recurring question, "How do you feel *now*?"

At every step we are met with objections; we are told by the patients that they cannot eat, and cannot walk, and cannot sleep without their anodynes, and to all of this we have to oppose not argument and persuasion, but *ourselves* and our authority, based on our knowledge of what can be done. It is perhaps the *man* who cures as much as his remedies, and it requires only a little experience to appreciate the value of Weir Mitchell's plan of taking these patients out of their own homes and separating them from their friends, placing them where his control is absolute. They can be cured without it, but how much more easily where the struggle is between the doctor and the patient alone. The treatment need not be harsh; there is no indication for harshness. Take it for granted that she is to be cured, and set about it in the easiest way for herself and yourself. It will require a good deal of strength of will and no little knowledge to oppose the evil strait into which she has fallen, and the habits of a life time which have brought her to it, but it must be done, and when once begun the task is half accomplished. There are scarcely any other cases in which the confidence required is greater, or the control needs to be more absolute.

PLEURO-PNEUMONIA FOLLOWING TYPHOID FEVER—DEATH FROM LARGE PLEURITIC EFFUSION AT END OF SEVENTH WEEK, WITH PEYER'S PATCHES STILL UNHEALED.

George Ross, æt. 26, born in Massachusetts, a sailor, single; admitted October 30th, 1877; always enjoyed good health, and denies venereal disease; had been sick four weeks at sea before admission, the principal symptoms being prostration and some fever. He was in a condition of slight hebétude when admitted. It was difficult to obtain much history, but the captain of his ship stated that there had been no diarrhœa, epistaxis, or actual delirium. Respiration was slightly jerking, but the lungs expanded well and no abnormal sounds could be detected in the chest. He had no cough; the abdomen was not tympanitic, and the marks of some kind of plaster were noticed in the hypogastric and iliac regions.

Temperature upon admission was 101°, the pulse 101, and the respirations 24 to the minute. The patient was restless and irritable and required watching at night, although there was no marked delirium. He seemed rather dull and did not complain of anything. Bowels were moved two or three times daily after admission. The urine was light colored, cloudy, sp. gr. 1010, no albumen and no sugar.

November 2nd.—Patient found to have left-sided pneumonia; dulness at left base posteriorly, where there is also impaired respiration, coarse crepitation, with bronchophony and bronchial breathing above and whiffling in respiration at line of dulness. These signs were not found in the front, where the percussion note was clear on both sides, and the respiration vesicular. There was no cough and no expectoration.

The nails showed checking of growth in a ridge running across the nail at about one-third the distance from the matrix to the free border. He was ordered turpentine stupes, quinia (gr. xij) daily, and a mixture containing qtt. v of the tincture of digitalis and gr. x of the citrate of potassium every four hours. The impulse of the heart was moderately extended, but not forcible. The first sound is murmurous and soft, but there is no murmur.

November 3rd.—Physical characters much the same; still no cough. There is impaired breathing, and some fine râles can be heard at the right base posteriorly, with some loss of resonance. The dulness on the left side is clearing up; the respiration anteriorly is rather exaggerated; the amount of whiskey increased to f 3̄vj daily.

November 5th.—Decided dulness at right base posteriorly, with signs of pneumonic consolidation of lower half of lung. The left side is clearing. Ordered carbonate of ammonia (gr. x) every three hours.

November 7th.—Considerable dulness of right side anteriorly; is troubled with hic-cough upon the slightest exertion. This continues nearly all night; has a slight cough occasionally; he is restless at night.

Treatment continued; blister to right chest anteriorly; spirits of chloroform (f 3 j) administered four times a day; takes ten ounces of whiskey daily; tongue coated and dry; no cardiac murmur; a little faint crepitation at base of heart, but the patient's condition prevents him from holding his breath for the purpose of accurate diagnosis.

November 8th.—Tongue tremulous; has a little dry cough and troublesome singultus. Ordered plenty of milk, beef tea, eggs, etc.

November 9th.—Looks better, but still very weak; still considerable dulness over the upper part of the right lung, where respiration is imperfect and feeble, with slightly prolonged expiration. The whole condition seems to give the idea of non-expansion or of collapse. The pulse has better volume; tongue cleaner, moister, and slightly coated, but is less typhoidal in its appearance. There is less hebetude.

November 11th.—Hic-cough better; still taking ten ounces of whiskey daily and carbonate of ammonia every two hours. Respiration rather feeble at the right base, with coarse crackling above it; tongue rather dry, with white coating, but less dry than before; no albuminuria. Basham's mixture (℥ ss. s. t. d.) now ordered. There is some effusion at the right base.

November 12th.—Twitching of the facial muscles in sleep; respirations 23 in sleep and 36 awake; has very little hic-cough at present.

November 13th.—Better to-day than yesterday; appearance brighter; urine normal; pulse has rather more volume; there is a sound of friction at the right base.

November 14th.—About the same; temperature rather high; respiration quite feeble, with some prolongation of respiratory murmur at the right apex, with still some dulness; fremitus on right side feeble; the evidence of effusion at the right base persists. Whiskey increased to oz. 12, and Basham's mixture given four times daily; quinia, gr. xvj, daily, and carbonate of ammonia, gr. x, every four hours.

November 15th.—Impulse at apex of heart is not in the normal position, but is a little outside of the linea mammalis; the sounds are indistinct, yet well defined; the heart is displaced by pressure from the right side, but its beat is distinctly felt; the lower part of the right lung moves a little in respiration. Ammoniac carb. to be stopped, and Basham's mixture to be given every three hours.

November 18th.—Is passing water freely; apparently improving; respiration, though feeble at the lower part of the right lung, is again distinctly vesicular and is less dull, but there is still impaired resonance at the right apex; the apex beat of the heart retains its distinctness, and is seen as well as felt in the sixth intercostal space, one and one-half inches to the outside of the nipple; a slight quiver can be seen in the space above; there is slight friction at the left base; respiration well sustained on the left side, low down but it is rather harsh.

Died this afternoon.

A post-mortem examination reveals an immense effusion in the right chest, with condensation of lung by pressure; heart pushed to left; no active sign of pneumonia.

In the ileum were found patches of Peyer in an ulcerated condition, one having sloughed out, leaving the sub-mucous coat with a healthy granulating surface.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY JOHN A. WYETH, M.D.

ANTISEPTIC DRESSINGS—COMPARATIVE RESULTS IN THE USE OF CARBOLIC ACID (LISTER) AND ALCOHOL.

A lengthy discussion occurred at the Séance of the Société de Chirurgie, February 12, 1879, on the above subject. In the course of his remarks M. Perrin said: "If carbolic acid spray will destroy germs it should prevent the process of fermentation. If, on the other hand, it does not have this effect, then it is an illusion. I have taken various solutions, decoction of barley, milk, blood and urine and placed them in balloons, inflated the one group with the air of a hospital ward, and the other with the same air submitted to the action of Lister's method. These experiments showed that the carbolic spray did not prevent the development of bacteria in the liquids. The urine contained in the balloon, the air of which has not been carbolized, was after twelve days clear and without organisms, while the same urine in the carbolized balloon was filled with living monads. These experiments, made last year, were repeated in November, 1878, with the additional precaution of keeping the liquids at the same temperature, 12-14 C. (about 54-57° F.). On the fifteenth day a decoction of barley in the open air, appeared cloudy, and contained bacteria and monads without movement; the same decoction exposed to the air of the surgical ward was clear, and contained a great number of living bacteria; the decoction submitted to the action of carbolic acid, was also clear but contained living bacteria and monads in immense numbers. Blood exposed to the air of the wards, remained alkaline, inodorous and contained bacteria, mostly dead; while the carbolized blood had a disagreeable odor and contained many living monads. While it may be said that these results may be produced by chance, it none the less allows us to doubt the absolute efficacy attributed to Lister's method, and to compare this with other antiseptic methods. Every method which relies alone for its success upon the destruction of these germs is impossible.

I am in the habit of using alcohol in dressing wounds for these reasons: It prevents decomposition in all albuminous liquids; it has an unquestionable hæmostatic power; it permeates the exposed tissues without irritating, as does carbolic acid, which is so severe in its action that Lister himself uses a protection membrane, and as M. Leon le Fort has said, an erythema often approaching to erysipelas is the result of this contact. This accident I have never observed

with alcohol. In order to arrive at a just conclusion as to the efficacy of these two methods, let us compare the statistical reports. Lister gives his own cases in 1867 as 6 deaths in 40 amputations, or 15 per cent. From 1870-74 a death rate of 27 per cent. in amputations of the thigh. Saxtorpe of Copenhagen in 102 cases gives a mortality of 27 per cent. Volkmann, prior to 1874, had 6 deaths in 40 cases. In a more complete statistic from 1874-77, he reports his cases according to the character and gravity of the operation. In 95 resections of the hip joints there were 7 deaths; in 9 resections in continuity, no deaths; in 100 cases of removal of tumors from the breast, 8 deaths.

During the two sieges of Paris and since, I have performed 20 major operations in which the wound was dressed with alcohol, with two deaths, one after disarticulation of the hip in a case of fracture of the femur and hemorrhage from the profunda; the other after disarticulation of the shoulder in a patient suffering from tuberculosis. In 1863, Nelaton, out of 54 amputations had 53 cures, and later, in another series of 48 cases, there were 45 cures, the three fatal cases dying from cancer, phthisis and pyæmia, respectively.

In these cases the wounds were washed with the alcohol solution, and the dressings soaked in this solution were changed daily.

M. Verneuil, in the discussion which ensued, denied that inflammation followed Lister's dressing, and no matter what the theories might be upon which it acts, the results of Mr. Lister's method were magnificent. He would say the same of Guérin's cotton dressing. He had used alcohol as recommended by M. Perrin, in equal parts of water, and had found it was often powerful. Moreover, M. Perrin did not employ alcohol simply as a dressing, but as a means of irrigation. He would much prefer the *pansement onate*, which would be left undisturbed for 20 days if necessary. He admitted that alcohol had been useful in opening the way to better methods, but he looked upon it as upon a "respectable patriarch."

M. Lucas-Championnière advocated the Lister method. Erysipelas was unknown in his wards for 3½ years. Volkmann had observed only three or four cases among ten thousand wounded soldiers. Moreover, this operator had reported 73 of complicated fractures which under Lister's method ended in the recovery of all, while before the introduction of this system he had lost 12 out of 16. Nelaton himself did not say that his (the alcohol) method would prevent purulent infection, for his son had repeated the remark of the elder Nelaton, near the close of his life, that "the day any one discovered a method of preventing purulent infection, he should deserve a statue of gold."

In conclusion, M. Despres said he did not endorse the method of Lister, and that if the statistics of foreign surgeons gave such favorable results, it was because they operated upon cases in which operations were unnecessary, and in which French surgeons would not have operated.—*Gaz. des Hôp. Nos.* 19-22 and 25.

THE PLAGUE.

M. Fauvel, General Sanitary Inspector of France, in reporting upon the character of the epidemic which is now threatening to involve Western Europe,

concludes: "While there is some doubts as to the essential characters of the epidemic now prevailing near the mouths of the Volga, it is most probably the true *Oriental Plague*. If the present measures of quarantine are not efficient in keeping the disease within the limits of its origin, the Danubian Provinces and the Azoff and Black Sea ports and later Turkey will probably first suffer from its advance. Vigorous measures will prevent its introduction into France and the West,—*Ibid.*, No. 24, p. 190.

A CASE OF AMPUTATION AT THE HIP-JOINT, IN WHICH THE ILIAC ARTERIES WERE COMPRESSED BY DAVY'S LEVER.

Mr. A. Pearce Gould brought forward this case before the Clinical Society of London. The patient, a man aged 28, was admitted into Westminster Hospital with advanced disease of the hip. Excision of the head of the femur, which was separated from the neck, was performed, but it afterwards became necessary to remove the limb. Mr. Gould did this by prolonging his excision-wound downwards a short distance, and then severing the thigh circularly—an oval amputation, in fact. He claimed for this method that it considerably lessened the extent of the cut surface, and the uninjured inner part of the thigh was very useful in supporting the posterior flap, and in aiding the nutrition of the flaps. He recommended it especially in cases of amputation following excision. The iliac vessels were controlled by Davy's lever passed into the rectum. There was no flow of blood during the amputation, only that lying in the severed vessels escaping; at the end of the operation the blood in the tray, mixed with serum and sawdust, measured less than three ounces. In comparing Davy's lever with Pancoast's tourniquet, which is usually employed, Mr. Gould held that it had the following advantages: 1. It disturbed the circulation less; 2. It did not interfere with the respiratory movements, nor was it interfered with by them; 3. Its use was not prevented by obesity, rigidity of abdominal walls, or the existence of abdominal tumours; 4. The pressure required was less; 5. Less liability to injury of viscera and peritoneum; 6. Greater ease and security in application; 7. Greater cheapness and durability; 8. If the lever were not at hand, its place could be more easily supplied. The lever was first suggested and used by Mr. R. Davy in a young child, in January, 1877; then by Mr. Gould in December, 1878, and since then by Mr. H. Marsh, Mr. Johnson Smith, Mr. Davy, and Mr. Cadge, and in every case successfully. Mr. Gould showed some deep sutures which he had employed to maintain the flaps in exact apposition; they were steel pins, riveted at one end to a flat oval disc of vulcanite; the pin was passed through the flaps up to this disc, and then a similar disc of pure black India-rubber was slipped down over the pin on to the other flap; by its elasticity it gripped the pin. Three of these were used, and held the flaps so firmly that the patient was able to turn in bed and move his stump without assistance. The patient progressed very favorably for forty hours, but died at the end of sixty-eight hours; and at the necropsy, all the veins of the left foot, leg, and thigh were found to be filled with black coagulum, which reached just into the common iliac vein. There was no sign of injury of the rectum, peritoneum, or arteries.

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EDITORIAL.

ANÆMIA.

Mothers' faults are the outgrowths of love for their little ones. Whether manifested in the giving of latitude in the childrens' enjoyments, parental indulgence, or in adorning them to meet the requirements of extravagant fancy or envy, parental pride, the fountain of error, is that noblest of human passions, a mother's love. Recognizing the so great purity of source, it is cruel, certainly it is uninviting, to oppose parental indiscretions and indulgences, which in their influence and termination are so extremely dangerous and disastrous, therefore must be guarded against.

However pure the beginning, the end reached by them, in reality must be allowed the greater weight in determining how far, if at all, they are to be tolerated. Cold, logical deductions from experience must turn the tide of parental love when it leads towards misery, the immediate thankless return to be expected must not be fully counted against the over-fond mother. No one loves, nor can love, as a mother her child. She alone knows the depth of that love, therefore, but feebly at first lends attention to the warnings of cold reason that would restrain her in controlling her little ones. Quiet and measured efforts of reason can be made, and should be made opportunely, always, to secure that very love to assist in the task of improving the childrens' chances for future happiness.

That present gratification is not always to be reflected in a future happiness, but may be the stepping stone to misery, is not beyond a mother's comprehension. She may, if properly approached, adopt that warning as her guide in the care of her children, but she must be convinced that the restraints sought to be imposed upon her little pets will certainly prove effective for their benefit.

Such a prudent course has been adopted in the effort of Doctor Emmet in his Gynecology, looking to the exposure and prospective correction of very serious errors in the management of girls' clothing, especially at the first important event in femininity, when long dresses are put on. We admire the Doctor's courage, and accept for ourselves the force of his statements; further, we shall feel sorry for him, when he is called to account for his conclusions by some mother, whose desire to cultivate her daughter's charms to the extreme of irresistibility—the general ultimatum to be attained—has caused her to be guilty of indiscretions such as he cites.

He is particularly severe upon the indiscriminate clothing of these young ladies in gloves and veils, demonstrating clearly that many diseases which show themselves later in life, are attributable to, or are aggravated by the reprehensible practice of depriving the skin of the sun's direct action.

The blood, from an insufficient supply of sunlight, becomes impaired in quality, the number of red blood discs is markedly diminished and the white blood globules notably increased, producing the anæmic condition and fair skin in which many of our fashionable women take such pride. Blood in this deteriorated condition cannot perform its functions in perfection, and the whole economy is affected, and the numerous diseases engendered by by this condition of anæmia are invited. The period for their full fruition in wrecked hopes and health may be continued through years, but the result is inevitable.

The woman who could so carefully watch, sprinkle and sun her potted plants, has failed in the task of bringing Nature's charms to adorn her own offspring; rather she has prevented Nature from accomplishing her appointed duty, and robbed her child of its birthright, the glow and joys of health. But little more care is needed to perfect the child than the pretty rose bush, in point of genuine beauty. The same instrumentalities will yield alike in either case.

The God-given sunlight and pure air drop finer and more lovely shades of color upon the human face divine, and upon the unseen flower far out in the prairie waste, than ever Michael Angelo in his palmiest days could conjure; and more, they give life currents and sustenance.

The mistake of over care, dictated by pride, should be remedied promptly. The sparsely filled veins and pallid faces are the spectres of the triumphs of that pride in the past that should chill the premonitions of its recurrence.

ABOUT BOOKS.

The National Dispensatory, by Stillé and Maisch. Philadelphia. Henry C. Lea, 1879, 8 vo. pp. 1628.

There is perhaps no department of medical science to which so many new and important facts have been added in the last few years, as that of *Materia Medica* and *Therapeutics*. The addition does not consist so much in the discovery and appropriation of new drugs and chemicals as remedial agents, as in the more scientific study of the actions and uses of those that we already possess, and which have been used for many years in a more or less empirical manner. Indeed the tendency of recent progress in this province of the art of medicine has been rather to drop from use many agents, formerly more frequently employed, and restrict our prescribing to a few of those whose physiological action has been well studied and precisely determined, and whose therapeutic uses are founded on rational ideas thus furnished. Investigations concerning the physiological actions of medicines are now being rapidly pushed forward in all quarters, and the workers in this field of enquiry are exhibiting an energy not surpassed by those in any other. In fact it is from help derived from this direction, combined with a more thorough acquaintance with pathology, that any steps towards making medicine an exact science must come. This fact is receiving full recognition, and as a consequence we have fresh information concerning the actions of long used and familiar remedies pouring in upon us every day, and from all quarters.

A new work, therefore, on *Materia Medica*, such as the one before us, in order to receive attention and be fully up to the standard required by the scientific, positive spirit of the day, must differ in many respects from those that have gone before it, and especially in those parts devoted to the consideration of the physiological actions of drugs. Indeed, if we examine the older works of this nature we will find such discussion to be entirely wanting, or, at most, very briefly hinted at. The authors of the present work seem to have been fully impressed with the importance of these requirements and have constructed their work on the most advanced principles. In this fact lies the superiority of the present volume over other dispensatories. This is an entirely new work, written in the spirit of advancing science. The new editions of other dispensatories are necessarily hampered in style and arrangement by that of the older editions, which have become obsolete. A new edition of an old work can not therefore be as valuable or reliable as one that is freshly written throughout, and more especially on a subject of this nature, where the advancements and improvements in our knowledge have been so striking.

The work is intended for the use of both practitioner and pharmacist and deals with all the practical details of pharmacy. It is, in our opinion, a work necessary to every practitioner, for in it, he may have easy reference to facts relating to the preparation of drugs, their best methods of administration &c., and those facts, a knowledge of which is so requisite to the proper combination and admin-

istration of medicines, concerning which, there is such lamentable ignorance manifested by very many members of the profession otherwise well posted.

The index is very copious, and a valuable aid in facilitating easy reference to its pages. There is added also a therapeutical index which is exhaustive, well arranged, and very useful for ready reference. A brief glance at this index is curious in some respects, revealing the large number of different medicines that are often used for one disease. Thus, under the head of amenorrhœa no less than fifty-three different remedies are recommended, the astounding number of one hundred and three are mentioned under the head of rheumatism, but, *mirabile dictu*, there are no less than one hundred and thirty-two that will benefit or cure bronchitis.

In the appendix are given a table of maximum doses, and numerous others for converting the various systems of weights and measures, the degrees of thermometric and hydrometric systems, etc., also a list of reagents employed in chemical testing.

The work is printed in the usual excellent style of all works issuing from the press of Henry C. Lea.

SELECTIONS FROM JOURNALS.

ANTISEPTIC SURGERY IN PARIS.

The Society of Surgery has, during several of its last sittings, been occupied with a long debate on antiseptic dressings, in the course of which it has become apparent that the antiseptic system of surgery has established itself triumphantly in Paris, and is indeed in a fair way completely to revolutionise the results hitherto obtained in those hospitals which have for many years been so notoriously bad as to have become a byword in Europe. The parable has been taken up in succession by M. Farabœuf, Lucas-Championnière, Panas, and others, and with certainly a crushing result. M. Lucas-Championnière deserves not only the credit of being one of the first of French surgeons thoroughly to study and carefully to appreciate the whole meaning of the theory of antiseptic surgery, as well as the practice of it by Mr. Lister, by his writings, and still more by his example in the various surgical services in Paris, of which he has from time to time had charge, he has succeeded in demonstrating so completely that results as excellent and as free from mortality may be obtained in French wards as in any others, that it is clearly impossible for French surgeons to hold out much longer against a demonstration so striking. Indeed, the battle may be said, after reading this discussion, to have been already won. The brilliant and striking speech of M. Farabœuf sufficiently shows that among the younger generation of surgeons not only are the Listerian methods fully appreciated, but the principle upon which they are based is perfectly apprehended, and will not be dropped.

M. Farabœuf was justly merry over the numerous combinations under which the Listerian method is in England and elsewhere concealed, parodied, or modified; and in all the debate there is nothing which seems to have been more warmly approved or more thoroughly felt than his powerful statement. But perhaps the most satisfying, because the fullest

of facts, is the short speech of M. Panas towards the close of the discussion at the meeting on April 2nd. This highly distinguished surgeon, and recently appointed professor of the faculty, said frankly :

"I am one of those who, for the last two years, have very carefully carried out antiseptic surgery. For twenty-five years I have acted as hospital surgeon, and I have employed various dressings. I can, then, compare myself with myself, and my former results with those of to-day. I present to you first a patient who has had his knee laid open by me for a chronic hydrarthrosis of a year's date. This hydrarthrosis had a traumatic cause. There were, therefore, inflammation and fever. It was under these conditions that I opened the joint. I made an incision of six *centimètres*. A yellow fluid, mucus, with fibrinous flakes flowed out. The synovial membranes were of the thinness of the thumb; there were enormous synovial fringes. The patient was carried back to his bed and had his limb placed upon a cushion without being immobilised. The cure was complete at the end of six weeks. The synovial membrane has recovered all its physiological suppleness; there is no stiffness. The patient has resumed throughout the year a very hard service on the railway. Except for the cicatrix, this knee is absolutely like the other. This is the fourth knee-joint opened in my wards; the three others were opened by M. Lucas-Championnière, one, among others, in a patient whose leg another surgeon wished to amputate. This serious of cases shows that the surgery which we now carry out differs from the surgery which we carried out before. I have seen the knee-joint opened under this method, for foreign bodies, for suppurating arthritis with caries, fever, etc.: so that this operation, which was formerly contra-indicated, is now permissible on condition of employing the dressing of Lister. He who would do it by any other method at present, would deserve to incur police penalties (*serait peut-être passible de la police correctionnelle*)."

Notified by the president at this time that so absolute a statement was hardly permissible at a society from which it might go out with considerable notoriety, and might lead to unpleasant consequences to a surgeon who should open a knee-joint under other conditions, M. Panas observed that, of course, that was not his intention; but he wished to point out that with the Lister dressing an articulation might be opened with great safety, whilst in other less perfect dressing it was a great imprudence. He continued :

"I pass to the amputations of the breast. I have performed fourteen amputations, all treated antiseptically (*avec la Lister*). I do not include an old woman of eighty-two, upon whom I was forced to operate, and who died on the fourth day of senile exhaustion. The fourteen others have all recovered; there are patients who recovered in eleven days; others in twelve days; the average was twenty-four days. Whenever I have employed other methods, the patients left the hospital after an average of six weeks. The duration of treatment is, therefore, reduced by half. Another important result is the absolute disappearance of erysipelas from my wards. At St. Antoine, when I commenced my surgical practice in charge of the wards, out of

every three patients with amputation of the breast, I had two cases of erysipelas. The scourge of the wards of Nélaton at the Clinical Hospital, and of Velpeau at the Charity, was erysipelas. Of my fourteen cases of amputation of the breast, thirteen recovered without any application. In the fourteenth woman, there was a slight erysipelatoid tendency; but it was at the Lariboisière, where all the medical and surgical wards in the hospital were full of erysipelas. During these two years, I have not had in my wards any case of purulent infection. I have operated in very serious cases of strangulated hernia; my patients have recovered without any application. In fourteen operations, I had two deaths; but in one case of crural hernia the woman was already moribund and cold. I had to make her an artificial anus, and she died without reacting. Another patient died of tetanus after he was cured of his operation. In another patient, when I had operated, a flood of faecal matter made its exit. The intestine was perforated. Nevertheless, the man recovered. As to vertebral abscesses (*abcès froids*), they had come to be considered as things not to be touched. I had been in the habit of recommending my pupils not to touch these abscesses, by reason of the danger which the operation offered, and also because sometimes such abscesses healed if left alone. The method of successive subcutaneous punctures led to grave accidents and caused fistulae. It was the same with capillary aspiration. I had arrived at a sort of surgical nihilism. It was then that I began to employ Lister's dressing. The simple uncomplicated progress of abscesses thus operated on and thus dressed is what has struck me the most. In the great amputations, it is certain that the mortality has fallen since the employment of antiseptic methods. M. A. Guérin is one of our most skillful operators. During the war, at the Hôpital St. Martin, before the invention of the cotton-wool dressing, M. Guérin had as many deaths as operations. Two months later, at the Hôpital St. Louis, during the Commune, on patients much more exhausted, but with the cotton-wool dressing, M. Guérin had excellent results. If we, who have seen various dressings and various surgical methods, have arrived at giving a large preference to the antiseptic dressings, and in particular to Lister's dressing, much more ought this dressing to be accepted from the outset by the younger generation. The modifications which people have endeavored to impose on Lister's dressing have not up to this time been happy. Thus Callender contents himself with carefully washing the limb with carbolic acid before opening the psoas abscesses; and then, after the incision, he washes the depths of the cavity with a strong solution of carbolic acid. He covers the wound with lint dipped in carbolised oil, without employing the other parts of Lister's dressing. I have tried this dressing once this year in my service in a patient having a psoas abscess. The results have not been good, and I have returned to Lister. I never washed out the wound with so-called pure water, as that water always contains vibriones. For the washing and dressing of eyes on which I operated, I employed a one-per-cent. solution of boracic acid."

Those who know the intelligence, skill and erudition of M. Panas, and who have had an opportunity,

as we have had, of visiting his wards at a date prior to the commencement of the antiseptic dressings, and at a time when M. Lucas-Championnière was first introducing the method into the wards by the example of a few cases so treated, will appreciate the frank, courageous and outspoken declaration of M. Panas, and the effect which such a statement, so conclusive in itself and so effectually made, cannot fail to produce upon all his colleagues in the hospitals. He is known to be a surgeon of great skill, of excellent ability, and large information; and the emphatic endorsement which he has given to the completely revolutionising results of the introduction of antiseptic methods is unanswerable. It reads, on a small scale, like the now historical statements of Nussbaum of Munich and Volkmann of Halle, which made the Listerian method universal throughout Germany. The results in English hospital wards can, of course, never present the same striking contrasts; for the observance of a religious cleanliness and of a quasi-scientific isolation of each individual case has now for the last quarter of a century given results so good in our English hospitals after surgical operation, that the perfection of antiseptic methods cannot affect statistics in the same violently demonstrative manner as it affects the surgical statistics of France and of Germany, where the results of operation had for the last twenty years presented a lamentable contrast to those to which we have been accustomed in our hospitals. Indeed, it is curious, and to an English reader hardly credible, that, even in the course of this discussion, there still linger the old remains of disputes as to whether union by primary intention can be attained sufficiently often after amputation to make it justifiable to make that the customary object of all dressings after such operations. Nevertheless, the prevalent custom now making its way in most of our hospitals—nearly all performing under the Listerian precautions certain operations which are beset by particular danger—is of itself a practical tribute hardly less striking than that which M. Panas pays to the value of the antiseptic method. M. Panas said, by a sort of slip of the tongue which he hastened to correct, that to lay open freely a knee-joint in a case of hydrarthrosis or foreign body otherwise than under antiseptic precautions might almost be considered to call for judicial interference. That was, of course, an oratorical exaggeration, which he immediately withdrew. But it is probable that there are few surgeons at the present moment who would not accept the proposition that to do so would be to inflict upon the patient an immense additional risk, and upon a surgeon, in consequence, an additional anxiety of which few would be willing to take the responsibility; and the dressings of Mr. Lister in London, and the remarkable examples which his wards have afforded of the almost incredible immunity with which all the joints, and the pleural cavity itself, may be opened under an antiseptic spray and with antiseptic precautions, have so profoundly impressed the greater number of metropolitan surgeons, that during the last two or three years antiseptic surgery by the Listerian method may be said to have established itself in London as the ultimate resource when it is necessary to perform hazardous operations upon serious cavities, or upon deeply seated

parts which till lately would have been considered beyond the reach of the surgeon's knife.—*Brit. Med. Jour.*

THE TREATMENT OF INDOLENT ULCERS BY MEANS OF SHEET LEAD.

A good deal of attention has been attracted during the past year to the American treatment of indolent ulcers by means of Dr. Martin's India-rubber bandages, and the reports received on all sides as to the value of this method are eminently satisfactory. I would, however, urgently request that a trial be given to the system which I was in the habit of adopting in all such cases at St. Bartholomew's Hospital, Chatham, some thirteen years ago, viz., the application of sheet lead, moulded to the shape of the leg and kept on by an ordinary calico bandage. The size of the lead should be sufficient to cover the ulcer completely and lap a little over the whole skin; the edges and angles should be well rounded, so as not to chaff or irritate; it should be about an eighth of an inch in thickness, and moulded very accurately to the shape of the leg, so as to allow of no indent being apparent on the surface. After it has been carefully fitted, the leg should be bandaged from the toes upwards, and all that then need be done is to uncover the ulcer night and morning and allow some water from a sponge to trickle over it. The granulations should never be touched with the sponge itself. I believe that the rationale of this treatment is pressure, the same as in the case of the elastic bandage, though there may be also some action produced by the secretions upon the lead, as is said to take place when the lead-nipple shields are used. The great advantages of the system proposed are simplicity and cheapness, though as regards the former I think it must yield the palm to the elastic bandage. It would appear that in some parts of Africa the natives use sheet copper, and with some success, but I cannot say I have ever tried it myself.—*Practitioner.*

CEREBRAL HÆMORRHAGE FROM THE PROLONGED USE OF POTASSIUM IODIDE.

M. Hallopeau cites the case of a person who took a daily dose of 6-10 grams of iodide of potassium for a period of six months to cure himself of syphilis. From the ingestion of this quantity of the drug patches of purpura occurred on his lower limbs, and at a latter period a slight deafness and hemiplegia of the left side. The symptoms came on rapidly, and the patient was quickly and permanently cured; the hypothesis of cerebral syphilis being therefore excluded, whilst that of cerebral hæmorrhage from the excessive ingestion of iodide of potassium was favored. The result is to be attributed to the iodide—possibly to the iodates—but not to the potassium salt, although it proves that large doses of bromide of potassium may be absorbed. (*Le Practicien*, Jan. 13, 1879.)

CHRY SOPH ANIC ACID IN DISEASES OF THE SKIN.

Dr. Walter Smith sums up the knowledge that we have at present in the following words:—(1) Chrys-

ophanic acid is a powerful local stimulant—not, however, tending towards vesication or ulceration. Its action in this capacity is best illustrated in psoriasis. 2) It also possesses undoubted parasiticide power. (3) It is a most efficient remedy in two parasitic affections—viz., ringworm of the body and tinea versicolor. (4) In ringworm of the scalp it frequently fails, owing to causes that militate against all remedies as yet tried. 5 In favus it has not as yet, so far as is known, had a trial. (6) As a destroyer of animal parasites its efficacy remains to be proved. It would probably be of service in some cases of scabies and in pedicularia. 7) Internally, as Dr. Ashburton Thompson has shown, it is an emetic purge. (8) Alizarin, a substance belonging to the same group of bodies as chrysophanic acid, upon several grounds appears to deserve a more extended trial in diseases of the skin. The acid is open to certain disadvantages now tolerably well known. Of these, the staining of the skin and dyeing of the hair are the least, for they quickly disappear when the use of the drug is suspended, and by simple precautions the discoloration of the patient's pillow, linen, &c., can be avoided; but the irritant qualities of the acid are more marked, and in more than one case Dr. Smith has been obliged to discontinue its use, even when fully diluted—20 grs. or less to 3 i.—on account of the œdema, irritation and pain provoked by it.—(*The Dublin Journal of Medical Science*, March, 1879.)

TARTRATE OF MORPHIA FOR HYPODERMIC INJECTION.

Mr. Erskine Stuart draws attention to the tartrate of morphia, as a substitute for the injectio morphiæ hypodermica of the British Pharmacopœia. He states that he has made extensive trial of the substance, and has come to the conclusion that it is the best preparation of morphia for hypodermic injection. He has also found that it is an excellent preparation for use by the mouth, as its strength may be depended upon. Tartrate of morphia is a white powder, not at all unlike the morph. mur. in appearance, bitter to the taste, and although quite soluble in cold water, yet the solution so formed is milky, so it is better to use hot water. It is soluble in water to a great extent, without either the aid of acids or spirits,—indeed, the solution for hypodermic injection made from it is of the same strength as the Pharmacopœia injection, viz., 40 grains to the ounce, or in short 1 grain of the tartrate in 12 minims of the solution, so that 2 or 3 minims is sufficient for an injection. The advantages which this solution possesses for hypodermic injection are these; (1) It is bland and unirritating, being as mild as water, whereas the Pharmacopœia injection is intensely irritating even when prepared by the most experienced chemist. (2) The solution of the tartrate can be kept fresh for any length of time, while the Pharmacopœia injection soon changes color and goes wrong. (3) The ease with which this solution of the tartrate is prepared by merely weighing out the quantity and dissolving it in a certain measure of hot water. The tedious process of the British Pharmacopœia consisting of repeated filterings and

neutralisings, stands out in contrast to this easy process. (4) The concentrated nature of this solution renders it a very convenient form for administering by the mouth, as it occupies such small space, and can be carried most conveniently.—(*Edinburgh Journal of Medicine*, March, 1879.)

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week pills. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

III. PILLS.

135. *Abernethy's Pills.*

R Pulv. Aloes.....	grs. 48
Pulv. Ipecac.....	grs. 20
Pilul. Hydrarg.....	grs. 24
Extr. Hyoscyami.....	grs. 48

Mix. Divide into 24 pills.

136. *Barker's Post Partum Pills*

(BARKER'S P. P. P.)

R Ext. Colocynth. Co.....	
Hydr. Chloridi Mitis.....aa	3 3
Ext. Hyoscyami.....	grs. 40
Ext. Nucis Vom.....	
Pulv. Aloes.....	
Pulv. Ipecac.....aa	grs. 20

Mix. Divide into 120 pills (Dr. Fordyce Barker.)

137. *Brown-Sequard's Neuralgic Pills*

R Extract Hyoscyami.....	
" Conii.....	grs. 40
" Ignat. Amar.....	
" Opii.....	grs. 30
" Aconiti.....	grs. 20
" Cannab. Ind.....	grs. 15
" stramonii.....	grs. 12
" Belladonnae.....	grs. 10

Mix. Divide into 60 pills.

138. *Cole's Laxative Pills.*

R Extr. Colocynth. Co.....	grs. 30
Hydrarg. Chlor. Mit.....	grs. 10
Resin. Podophylli.....	grs. 1

Mix. Divide into 10 pills.

139. *Crane's Laxative Pills.*

R Pil. Hydrarg.....	grs. 24
Pulv. Aloes.....	grs. 6
Olei Tiglii.....	gtt. 1

Mix. Divide into 12 pills.

140. *Gross's Neuralgic Pills.*

R Quiniæ Sulphat.....	3 2
Morphiæ Sulphat.....	grs. 3
Strychniæ.....	grs. 2
Acidi Arseniosi.....	grs. 3
Extr. Aconiti.....	grs. 30

Mix. Divide into 60 pills.

141. *Helm's Pills.*

R Pulv. Ipecac.....		
Pulv. Opii.....aa	grs.	5
Quiniae Sulph.....		
Pulv. Digitalis.....aa	grs.	20
Ext. Gentian.....	q.	s.

Mix. Divide into 20 pills.

142. *Lancet's Pills.*

R Resin. Podophylli.....	grs.	10
Pulv. Aloes.....	grs.	20
Ext. Belladonnæ.....		
Ext. Nucis Vom.....aa	grs.	5

Mix. Divide into 20 pills.

143. *Pilula Aloes Co.*

R Pulv. Aloes.....	grs.	1
Extr. Gentian.....	grs.	1/2
Ol. Carui.....	M	40
Sacchari Lactis.....	q.	s.

Mix. Divide into 145 pills.

144. *Pilula Aloes et Fellis* (99TH ST.).

R Extr. Aloes.....	grs.	30
Fellis Bovis purif.....	grs.	20
Resin. Podophylli.....	grs.	2 1/2

Mix. Divide into 10 pills. Dose: One pill at night in chronic constipation; one pill night and morning in acute constipation.

145. *Pilula Aloes et Ferri.*

R Ferri Sulphat.....	grs.	60
Pulv. Aloes.....	grs.	60
Pulv. Aromatici.....	grs.	60
Strychniæ Acetat.....	grs.	2
Confect. Rosæ.....	q.	s.

Mix. Divide into 60 pills.

146. *Pil. Aloes Ferri et Taraxaci* (O. D. P.)

R Pulv. Aloes.....	3	1
Ferri Sulphat.....	3	2
Ext. Taraxaci.....	q.	s.

Mix. Divide into 60 pills.

147. *Pilula Anti-Epileptica* (99TH ST.)

R Argenti Nitrat.....	grs.	10
Zinci Oxidi.....	grs.	20
Micæ panis.....	q.	s.

Mix. Divide into 20 pills. Dose: One pill thrice daily.

148. *Pilula Anti-Podagrica.*

(WHITE'S GOUT PILLS.)

R Hydrarg. Chlor. Mit.....		
Pulv. Aloes.....	aa	3 1
Pulv. Ipecac.....		
Extr. Colchici Acet.....		

Mix. Divide into 60 pills.

149. *Pilula Anti-Rheumatica.*

R Extr. Colocynth. Co.....	grs.	45
Extr. Colchici Acet.....	grs.	30
Extr. Hyoscyami.....	grs.	10
Hydrarg. Chlor. Mit.....	grs.	10

Mix. Divide into 30 pills.

150. *Pilula Aperientes.*

R Ext. Aloes.....	grs.	20
Pulv. Rhei.....	grs.	10

Ext. Nucis Vom.....	grs.	5
Ext. Taraxaci.....	grs.	30

Mix. Divide into 20 pills. (Dr. Lusk.)

151. *Pilula "Bellevue."*

R Pil. Hydrarg.....	grs.	10
Pulv. Aloes.....	grs.	20
Res. Podophylli.....	grs.	3
Ext. Hyoscyami.....	grs.	10
Ext. Taraxaci.....	q.	s.

Mix. Divide into 20 pills.

152. *Pilula Doveri.*

R Pulv. Ipecac. Co.....	grs.	10
Extr. Gent.....	q.	s.

Mix. Divide into 3 pills. Each pill contains 3 1/2 grains of Dover's powder. These pills will be furnished, ready made, on requisition.

153. *Pil. Ferri Quinæ et Strychniæ* (O. D. P.)

R Quiniae Sulphat.....		
Ferri Redacti.....aa	3	1
Strychniæ Acetat.....	gr.	1
Extr. Gentian.....	q.	s.

Mix. Divide into 60 pills.

NEWS ITEMS AND NOTES.

Chinese Medicine.—When the Chinese physician examines the pulse, he places the arm of his patient on a cushion; then he applies the index, the middle and ring finger on the anterior face of the wrist in such a way that the index finger may be nearest the arm, and the ring finger nearest the hand. The physician then elevates and depresses each finger, alternately, with more or less force, like one playing on an organ. They examine, also, during a limited number of respirations, each of the nine pulses, which are formed, according to their doctrine, on each hand, and they deduce from these their prognosis, at once, without hesitation; make their prescriptions, and attend to administering their medicines on the spot; receive the fee and retire, not to return unless again summoned.

The Chinese physicians imagine a multitude of odd connections between the viscera of the human body and the elements, the seasons of the year, the stars, colors, etc. The heart, they say, is analagous to fire, to the planet Mars, to Summer, to Spring, and to southern climes. It comes from the liver, begets the spleen and the stomach, is antipathic with the kidney, and receives no injurious influence from its contact with the lungs. During the Spring-time the pulse is like a tense cord; in Summer it is more developed and becomes exuberant; in Autumn it appears as if floating; in Winter it is rather quiet.

They think that the spirits and the blood, both vehicles of heat and humidity, run through all parts of the body in twenty-four hours. This daily circulation, they say, commences in the lungs at three o'clock in the morning, and ceases next day at the same place and at the same instant. The knowledge of the canals through which this is effected constitutes, in the eyes of Chinese physicians, the fullness of anatomical knowledge. They count six canals which pass directly from above downward, and an equal number which return from below upward; eight run transversely, and fifteen obliquely.—*National Medical Review.*

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and object of the publication, should at once send the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition weekly. We assure every one, that the publication receives the most careful and judicious attention, and that the year's subscription will be found to be a very profitable one, and that all who favor it will be certainly benefited by their subscription thereafter. A few words more.

LECTURES.

A METHOD OF AMPUTATING THE LEG
NEAR THE ANKLE-JOINT.

JARVIS S. WIGHT, M.D.

Professor of Surgery at the Long Island College Hospital.

GENTLEMEN: I propose to say a few words to you this morning in regard to *amputation of the leg near the ankle-joint*. Then I will show on the cadaver a somewhat novel method of operating by antero-posterior flaps, so that you can follow the several steps of the operation.

In fact, we do not amputate exactly at and through the ankle-joint, for we cut off the malleoli and a slice of the tibia, as Syme, Pirogoff, Watson, and others have done. Hence, it is more correct to say *that we amputate the leg near the ankle-joint*. And because in the course of the operation the ankle-joint is cut through, is no valid reason why the operation should be called a *disarticulation*—I mean, the completed operation.

In this place let me remind you of the following facts, namely:

1. In the majority of cases the external malleolus projects downward further than the internal malleolus.
2. In some cases the external and the internal malleoli project downward to the same distance.
3. I have never seen a case in which the internal malleolus projected downward further than the external malleolus.
4. The distance to which the external malleolus projects below the upper surface of the astragalus is usually about one inch.
5. The distance to which the internal malleolus projects below the upper surface of the astragalus is usually about one-half inch.
6. A line drawn from the middle of the lower end of the external malleolus across the *anterior* surface of the ankle-joint to the middle of the lower end of the internal malleolus is nearly equal to a line drawn from the middle of the lower end of the external malleolus across the *posterior* surface of the ankle-joint to the middle of the lower end of the internal malleolus.

In the next place, let me enunciate the following practical rule, namely, *In amputating at or near a large joint, give the flaps an additional inch beyond the joint*. This is all important, not only to regulate the length of the flaps but to compensate for the contraction and the retraction of the tissues.

You will now observe the different steps of amputating the leg just above the ankle-joint, namely:

1. Begin with the point of the knife at the middle of the lower end of the external malleolus and cut in a line with the axis of the leg directly across the sole of the foot around and down to the os calcis, going to a point a little below the middle of the lower end of the internal malleolus, just opposite the point of departure.

2. Now join the ends of this incision by cutting through the soft parts across the dorsum of the ankle about one inch below the ankle-joint. It will now be seen that we have begun to form two flaps by cutting from without inward.

3. Then dissect the anterior flap from the capsule of the joint, from the two malleoli, and from about one-half inch of the tibia and fibula.

4. Also dissect the posterior flap from the posterior surfaces of the two malleoli, and from the inside and the outside of the os calcis obliquely upward and backward, so as to reach the posterior limit of the sub-astragaloid joint.

5. An assistant holds the leg, an assistant holds the foot, and an assistant retracts the posterior flap on both sides of the heel by retractors inserted just above the os calcis: *A saw is now applied in the middle of the first incision under the os calcis, and the posterior end of the os calcis is cut off obliquely upward and backward to the posterior limit of the astragalus.*

6. In the next place, dissect up closely to the posterior surface of the leg bones, the posterior flap on a level with a line of the anterior flap, about one-half inch above the transverse portion of the ankle-joint.

7. The saw is now applied to the lower end of the leg bones, *without opening the ankle-joint*, and the two malleoli and a thin slice of the tibia cut off quite transversely to the long axis of the leg.

8. The posterior flap is finally brought forward and upward, placing the sawn surface of the posterior part of the os calcis accurately against the sawn surface of the leg bones.

Permit me to make the following remarks in regard to the operation just described and performed, namely:

1. The operation is made with antero-posterior flaps; the anterior flap is short; the posterior flap is long.
2. The anterior flap is made with a knife.
3. The posterior flap is made with a knife and saw.
4. The posterior flap contains a piece of bone.
5. There is no *disarticulation* of the ankle-joint—the parts of the tibia and fibula cut off remaining attached to the foot.
6. It is an operation in the *continuity* of the leg; and cannot be denominated *an amputation at the ankle-joint*.
7. The operation is easily and quite rapidly performed, as you have witnessed on this cadaver.
8. The operation combines some of the essential and important points in the operations of Syme, Pirogoff, and Eben Watson.

9. You will remember that the *apex* of the posterior flap was not dissected from the under surface of the os calcis.

10. In fine, we may say, that the operation which has now been described and performed on the cadaver is *an operation in the continuity of the leg above and near the ankle-joint*.

CLINICAL REMARKS ON A CASE OF DROPSY.

BY
WILLIAM L. PLANT, M.D.,
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GENTLEMEN: The case before us has the following history:

Thomas A.—, aged thirty-eight; English; during early manhood a soldier in the British army. At the age of twenty-six came to America; has done carpenter work since. He avers that he has not been a constant or a hard drinker, though while well he frequently enjoyed “a bit of a lark wi’ the boys.” He is six feet tall, well proportioned, and must have been a strong man. He had had no illness of consequence until January, 1878, when he was for some weeks in St. Luke’s Hospital, New York, for some acute affection of the chest.

For a long time before this, however, he had noticed some swelling of the feet and ankles. It was more pronounced at some times than at others, but was never so great as to interfere with the wearing of his ordinary foot-gear.

After seven weeks at St. Luke’s he had so far recovered that he obtained his discharge, and went back to work. Yet he was not well, and after five or six weeks was obliged to give in to an increasing weakness and shortness of breath. For about a year he has been unable to do any work, and has steadily failed. Since leaving the hospital last winter, he has had little or no medical attendance. Some weeks ago he consulted a practitioner, who, as he says, told him he had lung trouble, and advised him to come to this hospital. Of late he has become so weak that he is obliged to keep his bed most of the time.

Uncovering his feet, we see that they are largely swollen. The legs above the ankles approach the elephantine in proportions. If I press upon them at any point with my finger-tips, the impression—the *pit*—remains for some time, and this denotes effusion into the connective tissue. Considered locally, we speak of this effusion as *œdema*.

Looking further, we find the scrotum immensely enlarged, suggestive of a hydrocele. But it is not *that*. A hydrocele is seldom allowed to become so large. It is more pear-shaped and less boggy to the feel. Besides, pressure leaves a *pit*, as it does not in hydrocele.

The penis is enormously distended and curiously curved owing to the one-sided attachment of its integument at the *frænum*. The connective tissue of these organs is filled with serous fluid—*œdema* of the scrotum and penis. In like manner the abdomen and the thorax *pit* on pressure. This is specially well marked over the sternum.

Looking still farther, we find the face, the neck, the arms and hands are in the same bloated and boggy state. In fact, there is a universal *œdema* of the connective tissue—and that is *anasarca*.

The abdomen is somewhat enlarged and rounded out, and percussion, especially at the sides, yields a flat sound suggestive of an accumulation of fluid. As the patient lies upon his back we find some tympanic resonance along the summit of the abdomen, for here the intestines float above the fluid. We have then, besides the dropsy of the connective

tissue, an accumulation of fluid in the bag of the peritoneum, known as *ascites* or *hydro-peritoneum*. Without doubt we have serous accumulation in other serous cavities of the body, and *that*, associated with *anasarca*, is known as general dropsy. The shortness of breath that characterizes this case suggests that the lung tissue also may be more or less water-logged.

Now, what ails this man? If I should ask a layman, he would say at once: “Dropsy; a plain case.” And that would do very well for a layman, but it won’t do for us. We know that dropsy is not *per se* a disease, but a sequence of disease, and that when it is extensive and of long standing, as in this man, it denotes that some one—perhaps more than one—of the great organs of the body is doing its or their work imperfectly.

Speaking generally, these dropsies will be found connected with disease of the lungs, the heart, the liver, or the kidneys. Let us see if we can discover the *fons et origo* of this man’s dropsy.

He was entered here as a case of lung disease. Now, it is quite true that some lung troubles may be attended with dropsical effusions. In the latter weeks of phthisis pulmonalis, when the heart begins to fail in propulsive power, the blood tends to stagnate in the capillaries, whence its thinner portions—made more thin by prolonged innutrition—readily transude into the connective tissue. But the dropsy of consumption is never as extensive as in this case. Usually it is limited to the feet and legs, and their puffiness is in marked contrast to the extreme emaciation of other parts of the body. Besides, we have no history of cough, expectoration, and nightly sweating, and no marked emaciation, nor does physical examination reveal lung disease.

But perhaps he has heart disease, for dropsy quite as extensive as this may so originate. Any interference, as by valvular disease, with the ready outflow of blood from the heart, will tend to keep it filled, or partly filled. This will impede the easy inflow from the veins. As a consequence, the whole venous system becomes surcharged with blood; and as pressure favors endosmosis, serum escapes into the connective tissue and then we have *anasarca* from heart disease. But this man’s heart has no murmurs; it beats regularly without exaggerated impulse and does not seem to be in the least diseased. Besides, cardiac dropsies are usually attended by a stuffy cough, by distended and throbbing jugulars and by a duskiness of skin and a lividity of the lips and extremities that we do not observe here. We may, then, rule out disease of the thoracic organs as the cause of this case of dropsy.

But once more; dropsy is a frequent result of trouble with the liver. That great organ becomes affected, say, by a chronic inflammation. The free passage of the portal blood through it becomes interfered with; so it “sets back” like the water above a mill-dam and fills the rootlets of the portal vein. And remembering again that pressure favors endosmosis, we can understand how serum should escape from these veins into the cavity of the peritoneum and produce abdominal dropsy. And this is the characteristic feature of effusion connected with liver disease—it is *abdominal* chiefly, if not wholly. Diseases of the other great organs do not

produce ascites except as a part of general dropsy. Here, though we have some ascites, it is unimportant as compared with the general water-soaked state of the body. Besides, an obstruction at the liver sufficient to dam back the portal blood will usually interfere with the secretion of bile as well and give rise to jaundice. This patient is not jaundiced; the entire surface is pale and clear. Again, serious and lasting disease of the liver in a man of this age is usually the result of long and intemperate use of distilled liquors or a prolonged residence in a hot climate. To neither of these causes has this patient been exposed.

There remains another organ quite as likely to produce dropsy if its functions are interfered with as either of the others and that is the kidney; and we now proceed to interrogate that by testing its secretion. Ascertaining first, that the urine is slightly and normally acid, I apply the usual test for albumen and get an immediate and dense deposit. The dropsy undoubtedly is of renal origin. It is a form of disease commonly spoken of as "Bright's disease," because Dr. Richard Bright of London was the first to demonstrate that dropsy with albuminous urine was indicative of kidney trouble. That was fifty-two years ago. Many other observers continued and extended the researches inaugurated by Dr. Bright. The microscope has been an invaluable aid in these investigations. To-day we know as much about the pathology of this disease as we do of any of the maladies that have been known for centuries.

My object to-day has been to lead you from the stand-point of the dropsy alone to a correct diagnosis. That accomplished, we are prepared when we come together again to consider in detail the disease under which this man labors, and the investigation of which has made the name of Dr. Richard Bright immortal.

ORIGINAL ARTICLES.

POSTURE AS A MEANS OF RELIEF IN STRANGULATED AND INCARCERATED HERNIA; WITH A GENERAL CONSIDERATION OF THE MECHANISM OF REDUCTION.

A paper read before the New York Academy of Medicine.

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GEN. LEMN OF THE ACADEMY. The following paper was written as prefatory to the consideration of spasmodic colic and ileus, and as presenting some points in common. But the space occupied in the consideration of hernia, has rendered it necessary to omit, on this occasion, the consideration of the latter. Spasmodic colic and ileus will, therefore, be considered at another time, should the opportunity be afforded.

In a late number of THE HOSPITAL GAZETTE I find, copied from the *British Medical Journal*, an account of a case of intussusception cured by copious injections of thin gruel, reported by Dr. Blaker, of England. In the concluding paragraph Dr. Blaker has summarized the causes of his success as follows: "First, the complete anesthesia, produced

by chloroform; *Second*, the early resort to the injections of gruel, before the invagination had become extensive, and before the intestines had become swollen; and, *Third*, the position of the child, lying on her back with the nates raised" (by a pillow), which, Dr. B. says, "favored, by gravitation, the introduction of the fluid."

While I am disposed to accept in the main the correctness of the explanation given by Dr. Blaker, I am inclined to attribute more to the posture and to the effect of gravitation than he seems to have done. Not, however, altogether, because the position favored the introduction of the fluid, but because the position, by gravitation, aided the withdrawal of the invaginated gut.

The object of this paper is to invite your attention to this point, and to illustrate and enforce my views by a reference to the effect of posture in the treatment of strangulated and incarcerated hernia, and in the treatment of certain forms of intestinal colic.

First, Examples showing the effect of posture in the treatment of strangulated and incarcerated hernia:

CASE 1. In August, 1834, I was called to see an infant male child having a strangulated, congenital, inguinal hernia, the strangulation having taken place the day previous. The child was much prostrated and was vomiting. After a prolonged and ineffectual attempt at reduction, I directed the mother, while the child was lying upon its back, upon a pillow, *with its feet and nates elevated*, to apply a bladder filled with cold water. No farther taxis was employed, and in about four hours the hernia retired.

CASE 2. March 10, 1854, I was called to see Samuel Tollhurst, æt. 2, having an indirect, inguinal, congenital hernia, which had been strangulated about 12 hours, during which time the mother had made ineffectual efforts to reduce it.

While the child was lying upon its back, upon a pillow, the mother, by my direction, seized both feet and *raised the hips until nothing but the shoulders rested upon the pillow*. I continued to employ moderate taxis, and almost immediately the hernia disappeared.

CASE 3. A male convict in Blackwell's Island Penitentiary, during the Summer of 1865, while I was on duty at the Charity Hospital, had an indirect inguinal hernia which had become strangulated. When visited by me in the morning, the strangulation had existed several hours, and one of the house surgeons of Charity Hospital had been with him all night making ineffectual attempts at reduction by taxis. The hernia was large and tender and the condition of the patient was alarming. The patient himself wished to take an emetic, by which means he said it had once been reduced when strangulated. I did not think it wise to adopt his suggestion; but directed that while the house surgeon was making preparations for the operation, an attempt should be made to reduce the hernia by posture.

Accordingly *the foot of the bed was lifted, and its legs placed on the top of a dining table*; and, while the patient was lying supine, upon this very steep inclined plane, with his head down, moderate pressure was made upon the hernia. It began to diminish in size almost immediately, and in about ten minutes it disappeared altogether.

CASE 4. Some years ago, and prior to the date of the case last recorded, a German, of middle age, living a few miles from Buffalo, N. Y. had a strangulated inguinal hernia. My former pupil, Dr. Ernest Pupikofer, was in charge, and had tried ordinary taxis for some hours before I arrived. I repeated the attempt and failed also. I then adopted the method described in case three, and in a few minutes the hernia retired.

CASE 5. Aug. 2, 1873 I was requested to see Mr. —, of this city, Drs. B. and F. in attendance. Three days before—July 31—he had been suddenly seized with pain in the region of the gall bladder which seemed to indicate the passage of a gall stone. 34 hours before I saw him, while vomiting, a hernia descended through the inguinal ring. He never had a hernia before.

After prolonged taxis, the application of ice, and the employment of other judicious measures without success, Dr. W—, one of our most experienced surgeons, was added to the consultation and the efforts at reduction were renewed. Subsequently, it becoming apparent that an operation could not be delayed much longer, Dr. B—, made the necessary preparations, and I was called.

At my suggestion Mr. — was laid upon a blanket upon the floor and two men lifted his feet and legs upon their shoulders, while I made taxis. This attempt failed. We then put him under the influence of ether, and a repetition of the same manœuvre was followed by almost immediate success.

CASE 6. A German, aged about 40 years, had suffered from a reducible, indirect, inguinal hernia about 10 years, which was sometimes reduced with difficulty. April 13, 1871, it came down and he was unable to reduce it, and on the following day he was sent to Bellevue Hospital. My house surgeon, Dr. Mitchell, gave him gr. $\frac{1}{4}$ of morphine, applied ice bags, employed taxis and raised the foot of the bed 2 feet.

April 15.—About 48 hours after the incarceration took place, he was not suffering from symptoms of strangulation; but the hernia which now occupied the scrotum, and appeared to be intestinal wholly, could not be reduced by taxis.

I then brought him before the class of medical students, put him under the influence of chloroform, elevated the hips upon pillows, and in about 5 minutes, under moderate taxis, the hernia retired.

CASE 7. Louis Keztell, æt. 55, admitted to Bellevue Hospital April 16, (probably 1872) with a very large, direct, inguinal hernia, on the right side, which had been irreducible for 8 days. A police surgeon had attempted reduction, and also Dr. Badeau, one of the house surgeons, but both had failed. My house surgeon, Dr. Mitchell, reduced it in about 5 minutes by taxis, aided by elevating the hips.

CASE 8. The late Dr. George T. Elliot, Jr., related to me the following case:—"In 1852 or 1853, when I was Resident Physician of the Lying-in-Asylum of this city, there was in the house a male infant with oblique inguinal hernia. When the child was 13 days old I could not reduce this hernia as I had done on previous occasions. The late Dr. John C. Cheesman then saw the case in consultation,

and failed in the taxis. With the Doctor's consent I administered chloroform, and as soon as anæsthesia was produced, *and the child held up by its legs*, the hernia was reduced with the greatest facility.

CASE 9. Wm. Thomas, æt. 25, came to my office Sept. 14, 1855, with a strangulated indirect inguinal hernia, right side. The strangulation had existed 8 hours. I put him under the influence of an anæsthetic but could not reduce it. He was sent home in a carriage and two hours later I called upon him, gave him half a grain of morphine, applied a bladder filled with ice and elevated his hips upon pillows. In about 3 hours the hernia retired spontaneously.

CASE 10. July 14, 1853, I was requested by Dr. Nott, of Buffalo, to see a man, about 50 years of age, who had an old indirect inguinal hernia upon his left side, and which two days before had become strangulated. He was suffering from considerable pain at the seat of stricture, and had vomited occasionally. Neither Dr. Nott nor myself were able to reduce the hernia by taxis. I directed him to be laid upon his back with his thighs flexed upon his abdomen and his hips elevated by a pillow, and a bladder filled with ice and water was laid upon the hernia. In a few hours the hernia disappeared.

CASE 11. Henry Kicher, æt. 29, admitted to Bellevue Hospital April 27, 1870, with an oblique inguinal hernia which had been strangulated 3 hours. A surgeon had attempted reduction by taxis before admission.

My house surgeon, Dr. McMaster, placed him in bed, *and elevated the bed by placing the lower feet upon a table*. Aided by taxis the hernia was reduced in about five minutes.

CASE 12. Henry Fricher, æt. 32, admitted to Bellevue Hospital April 27, 1870. He had an old, oblique, inguinal hernia, which had been strangulated 12 hours. Several attempts at reduction had been made before admission.

Dr. McMaster reduced it in about 20 minutes by the same method as in the preceding case.

On the following day I saw both of these patients, and they were well.

CASE 13. Michael O'Hara, æt. 29, was admitted to the Buffalo Hospital of the Sisters of Charity, Oct. 5, 1850, with an irreducible, oblique inguinal hernia, incarcerated but not strangulated. The hernia had been in this condition 20 days, during which time repeated efforts had been made to reduce it. It felt solid, tense and was tender and somewhat painful to the touch. His bowels had moved several times since it became incarcerated. It was diagnosed as an incarcerated omental hernia. After having myself made repeated efforts to reduce the hernia by simple taxis, I directed that he should be laid upon his back, in bed, *with his hips elevated*, and cool water fomentations applied. From this day the attempt at taxis was not renewed, although I saw the patient every day. The hernia receded gradually, and on the 10th day it had disappeared wholly.

CASE 14. Catharine Taylor, æt. 32, was admitted to Bellevue Hospital Aug. 20, 1868. She had had an indirect, inguinal hernia about one year. Aug. 18th or 19th it became strangulated. A surgeon tried to reduce it and failed. When brought to the

hospital on the following day she was very feeble. Her bowels had not moved in 48 hours. The hernia was small, but very tense and tender. Dr. Vance, one of the house surgeons, immediately put her under the influence of chloroform, and raised the foot of the bed. With the aid of moderate taxis the hernia retired in about half an hour.

I am able to recall a few other cases in which I have attributed the reduction of the hernia chiefly, if not altogether, to the mechanical effect of posture, but as I have no notes of these cases and my recollection of them is imperfect I shall omit to mention them. It is proper to say that some of the above reported cases were published some years ago in the "Reports of Bellevue and Charity Hospitals" (1).

I am aware that they do not all prove conclusively that the reduction was caused by the mechanical effects of posture alone, inasmuch as in most or all of the examples, other measures, such as taxis, ice-bags and anesthetics were employed also, but I think that a careful study of each case will force a conviction that posture was in all of the cases the chief cause of the reduction.

Let us consider briefly some of the leading theories which have been adopted, and which to an extent, more or less, are still entertained, as to the causes of strangulation. Omitting, however, such as have no pertinence to the main point which I propose to discuss, namely, *the actual and relative value of posture*.

Muscular Spasm

Says Velpeau: "Observing that the apertures through which hernia escape are entirely fibrous, it has been believed that the spasmodic strangulation suggested by Richter, and some others, was impossible. Fages, of Montpellier, who, Delmas says, continues to hold this opinion, has endeavored to defend it by referring the spasm to the large muscles of the belly; but from this point of view it did not gain any more partisans, and I myself have contested it. New and more exact anatomical researches, however, have led me to other conclusions. The connection, near or remote, of the angles of these kind of button holes, which hernial apertures actually represent, is such that all muscular contractions must increase the strangulation."—*Med. Opératoire, Deuxième Ed. Tome Quatrième, 1839, p. 55.*

It will be observed that in the paragraph quoted, M. Velpeau admits not only that the muscles more or less control the apertures, but that the opinion of Richter was correct, who held that muscular "spasm" might be a cause of strangulation.

Says Sir Astley Cooper: "When the strangulation is at the upper ring," (speaking of inguinal hernia) "a portion of intestine protrudes under the edge of the internal oblique and transversalis muscles, compressing them; which, in their turn, being excited to contraction by the irritation of this pressure, react upon the intestine with a force sufficient to produce a strangulation accompanied by spasmodic symptoms." *Abdominal Hernia, Amer. Ed., 1844, p. 77.*

According to Lawrence, Bertrandi had already

(1) Cases illustrating strangulated abdominal hernia, with other rare cases, including ovarian and obturator—in all seventy-three examples. By Frank H. Hamilton, etc. Bellevue and Charity Hospital Reports, 1879, pp. 147-225.

called attention to the supposed agency of the muscles in causing strangulation.

Fergusson speaks of the employment of "anti-spasmodics" in the reduction of strangulated hernia. *System of Surgery, 4th Am. Ed., p. 535.*

Druitt says that spasm was formerly considered a cause of strangulation. *Surgeon's Vade Mecum, 10th Ed., p. 510.*

Upon reference to M. Velpeau's great work on Regional Anatomy, to which he himself refers his readers for an explanation of his change of opinion, I infer that the change is based upon what he has observed as to the connections of the several abdominal and femoral fasciæ, and especially of the fascia transversalis and fascia lata with the inguinal and femoral apertures. But, admitting the correctness of his anatomical descriptions, I see no necessity of adopting his conclusions, namely, that all abdominal apertures, and all abdominal herniæ are, more or less, under the control of the muscles, and especially that muscular spasm may be a cause of strangulation. Whatever anatomical reasons may be assigned for this latter opinion, there seems to me a sufficient physiological or pathological objection, namely, that muscular spasm is in its nature too intermittent and brief to be the cause of a permanent strangulation.

The same may be said of the opinions of Sir Astley, who recognizes the existence of a spasmodic strangulation, because, in the case of indirect inguinal hernia, the peritoneal sac passes between the margins of the internal oblique and transversalis on the one hand and a portion of the fascia transversalis on the other. It seems highly improbable that these muscular fibres, pressing only against one side of the hernial protrusion, with the more or less yielding fascia beneath, should cause a genuine strangulation. I cannot therefore regard either the opinions of M. Velpeau or of Sir Astley upon this subject as entitled to much weight. At any rate their correctness has never been satisfactorily proven, and they have not been accepted by most surgeons. Skey thus pointedly denies the existence of muscular spasm as a cause of strangulation in ordinary hernia, declaring that while it might occur in a hernia which has penetrated the diaphragm, and in a few other supposed cases, in all ordinary cases it is impossible. "In truth" he says, "this antiquated doctrine, which has too long for the welfare of humanity referred the cause of strangulated hernia to spasm of the muscles, is almost exploded, and with it the numerous class of supposed remedies attendant on its train."—*Operative Surgery, by Frederick C. Skey, F. R. S. Philadelphia Ed. 1851, p. 435.*

Rejecting then the theory, as we think we may be permitted to do, that muscular spasm is ever the cause of a strangulated hernia we shall next inquire to what extent normal muscular action, or normal muscular tension, as influenced by position, &c. may control these apertures, or prevent the return of the hernia.

What effect has the position of the body, or of the limbs upon these apertures?

Nearly all surgeons up to the present day have believed that in the case of both direct and indirect inguinal hernia, flexing the thigh upon the abdomen, and at the same time adducting

and rotating the thigh inwards, would so relax the fascia lata, and indirectly Poupart's ligament, as to facilitate the return of the hernia.

The position described does, no doubt, relax the outer or inferior column of the external abdominal ring, as any one may easily satisfy himself by making the experiment either upon the dead or living subject—and thus enlarge this opening; and it must, in some degree, in certain cases facilitate the return of the hernia within the external ring; but this is probably the full extent of its influence. This position, we believe, in no way influences, or relaxes the internal ring, at which point, in a majority of cases, the real stricture exists. Moreover, in a large proportion, if not in all cases, of *old* inguinal hernia whether direct or indirect, the canal formed by the peritoneal and fascial prolongation has become in a great measure, or wholly independent of the rings and canal through which they have passed. In consequence of the continuous pressure and perhaps a low grade of inflammatory action, an eccentric and concentric thickening has taken place, and the entire canal, including its two outlets, has assumed the character of a tube, or of a channel whose walls are sufficiently firm to resist any ordinary pressure from without. Armand, Scarpa, and Lawrence say it may acquire a cartilaginous hardness. It is, therefore, neither capable of being enlarged or diminished by a change of posture. In some cases, as mentioned by Velpeau, this pipe, as it might now be called, actually lies loose in the canal and within the rings, and can be drawn in or out of the rings to a certain extent. Whoever has thrust his finger into the canal after death, in a case of old inguinal hernia, and then flexed or altered in any way the position of the body, must have noticed that these changes of position in no sensible degree affect the diameter of the rings.

Besides, in not an inconsiderable number of cases the seat of stricture is in the sac itself. Some surgeons believe that such is the fact in a majority of cases; but certainly, there are very many cases in which this is true.

There remain then only a small number of examples, in which, if the doctrines of Velpeau and Sir Astley were sound, either muscular spasm or normal muscular action, or position, can alter the condition of the stricture.

It will be remembered that a majority of all herniæ are inguinal. How then can it be said, in view of all the facts stated, that ordinarily hernial apertures can be influenced by posture or muscular relaxants?

Umbilical hernia.—I do not think it has ever been claimed that umbilical apertures are subject to these influences. Although it might be supposed, considering the situation of the hernia, in the central tendon of four strong and active muscles, that it would be peculiarly subject to muscular influences. I have never seen an umbilical hernia released by relaxing the abdominal muscles; nor am I aware that any one else has.

Femoral hernia.—The external ring of the femoral canal, formed by the fascia lata, is, no doubt, considerably under the control of posture; and if the stricture were ever at this point, the reduction of the hernia might be facilitated by certain positions of the thigh; but the internal or crural ring is

almost always the seat of stricture, being caused here, when it is not in the sac itself, by the internal and free margin of Gimbernat's ligament.

Surgeons have generally admitted that in the case of strangulated femoral hernia, posture does not relieve the stricture; that is to say, when the stricture is situated at the internal ring, or in the crural canal, and it is seldom anywhere else. Velpeau says: "In the crural canal all is solid and unyielding." And for this fact there is probably a better anatomical reason than any assigned by Velpeau; although his explanation might be considered sufficient.

Gimbernat's ligament is in a great measure independent of Poupart's ligament, and of the fascia lata, in consequence of certain tendinous fibres which, I think, were first described by Anderson. These fibres, arising from the anterior inferior spinous process of the ilium, coursing along the inferior margin of Poupart's ligament—forming with the latter only a feeble attachment—and which go at length to constitute the free concave border of Gimbernat's ligament. I have referred to this anatomical fact in my Treatise on Surgery, and have often demonstrated it to medical students.

I have thus far conceded what the advocates of muscular contraction, rigidity or spasm have considered undeniable, namely, that in the case of diaphragmatic herniæ and of other herniæ which have suddenly made their way through the abdominal walls, where there are no natural openings, called *ventral* hernia—muscular contraction may prevent the return of the hernia. This would seem at first to be a natural and inevitable conclusion. But let us consider the facts, so far as our own observation extends.

We have no means of knowing what is the fact in a case of diaphragmatic hernia, for it is out of the reach of our observation; but I have seen many examples of ventral hernia, caused by stabs of the belly, the wounds having been inflicted by pocket knives, dirks, bayonets and other narrow and sharp-pointed instruments; and I have seen a few such herniæ resulting from gunshot wounds (gunshot wounds of the belly do not often cause herniæ) and they have all been exceedingly difficult to reduce, however small they may have been, until the patients were brought under the influence of an anæsthetic. But in no case, which I can recall, has the return been facilitated by any posture which might relax the abdominal muscles. I will not say such relaxation has never facilitated the return, but I have certainly often tried it and it has failed, and I am convinced that successful results thus obtained are rare.

Nor do I see much difficulty in explaining this want of success, and what I have now to say applies to all hernial protrusions which have become strangulated. Where a viscus—the intestine for example—has escaped through these accidental apertures formed in the muscular or tendinous portions of the belly and has become strangulated, the hernial opening is by the pressure of the protruding viscus stretched to its utmost. If it were not, the intestine would not be strangulated. Instead of a narrow slit, as it was originally, it is now a circular opening, and the fibres, whether muscular or tendinous, which immediately invest it, are kept in this circular position by

the solid mass which they enclose. Suppose for example that instead of the intestine a finger or a piece of omentum were projected through the opening as far as possible without tearing the surrounding structures. Do you imagine that any amount of relaxation of the muscle would unloose the finger? Not at all. The fibres, whether muscular or tendinous, which immediately enclose the finger would be already stretched to their limits, and, the finger filling the orifice completely, how could the opening be made larger by muscular relaxation. The same is the fact when an intestine has escaped; the walls of the intestine are in contact with themselves at the point of stricture and it represents a solid cord; not so solid as the finger, perhaps, but nearly so, and the ring or aperture is by it stretched to its utmost, and cannot by muscular relaxation of the other portion of the muscle be made appreciably larger. If the ring contained nothing, or was only partly filled, muscular contraction and muscular relaxation might close and open the ring; but these effects, if produced at all, when the ring is stretched, are certainly very trivial and inadequate, as compared with other means and influences, and we are led to question whether in nearly all cases in which flexing the abdomen or thigh has seemed to facilitate the return of the intestine, the result was not rather due to the removal of the outward pressure caused by the abdominal muscles, than to the relaxation of the apertures.

By what other local or general means can we relax these apertures?

We will next enquire whether we have any means other than posture, either local or general, capable of relaxing and dilating, or which facilitate the relaxation and dilatation of these openings.

The old surgeons, in order to relax the rings, applied liniments, warm fomentations, relaxing salves, such as the belladonna ointment, and other cataplasms; and they professed to close up the rings after reduction by "emplastra styptica," "agglutinatives" and "vulnerary plants"; a pretence which certain empirics also make in our day.

Even good surgeons practice to-day, and recommend in their written treatises, the use of warm fomentations for this very purpose; and Dr. Gross speaks of "relaxing the stricture" by the application of cold fomentations, (Gross' Surgery, v. 2, p. 588—Fifth Ed.) Yet it would be difficult for any of these gentlemen to show in what way either warm or cold applications, could relax hernial apertures, whether situated superficially or deep. I do not consider any argument necessary to persuade you that they produce no such effects. With regard to the suggestion made by Dr. Gross that cold applications may relax these openings, I cannot but think that this distinguished surgeon has spoken inadvertently, or that he attaches to his words some meaning not conveyed or explained in the text.

There is much more speciousness in the opinion generally entertained that a certain class of *internal remedies* do produce this effect—namely, *chloroform and other anæsthetics, bleeding, the warm or hot bath, tobacco injections, &c.*; and this opinion has been confirmed in the minds of most men, not solely on theoretical grounds, but because they have had unquestionable practical evidence that all of these

agents are sometimes capable of reducing strangulated hernia. That they relax the openings, therefore, has seemed to them a necessary inference from the success attending their employment. We do not agree with them because the explanation or inference is not, as we have before intimated when speaking of the effects of posture, founded upon correct anatomical or sound pathological reasons, and because other and more satisfactory explanations of their good effects can be found.

If these agents produce their specific effects by relaxing the openings, then we shall have to admit what in the preceding discussion we have denied, and sought to disprove—namely, that these openings are—save as a rare exception, in any degree under the control of the muscles—for it is the muscular fibres alone and not their tendons which are relaxed by these general or constitutional measures. Nor can general relaxants effect the patulency of such pipes or channels as we have described, or of the structures of the sac itself which have become contracted and narrowed into a stricture.

What is then the true mechanism of the reduction of strangulated hernia, whether posture or general agents are employed, in the great majority of cases?

We have been occupied thus far in determining what is not ordinarily the mechanism of the release of a strangulated hernia. That is to say we have sought to show that it did not ordinarily consist in a relaxation and enlargement of the canal or rings.

We shall now attempt to show that nearly all of our successful results are obtained by either pressure from without—called taxis—or by traction from within, or by both combined. The efficiency of either method being always increased by the paralysis of the muscles, and especially of the abdominal muscles; which latter by their contraction are constantly tending to expel the hernia, and with a force so great that, while these muscles retain their usual strength, neither taxis nor inward traction may be able to accomplish the reduction.

Taxis.—Of the value, and precise mechanical effects of taxis, no question can exist.

Inward Traction.—In speaking of *inward traction* let us consider first those measures, admitted sometimes to be useful, in which posture is not an element.

Emetics, which were formerly much used, may cause inward traction by the sudden upheaval of the abdominal viscera toward the upper part of the abdominal cavity. It will be remembered that in case 3, the patient wished to have this method tried before resorting to an operation, as it had once succeeded in reducing this same hernia when it was strangulated. *Cold water* dashed suddenly on the naked body has been known to effect reduction; and probably by the same upward displacement of the viscera as occurs in emesis. But in both cases the displacement is caused by a real spasm of the abdominal muscles, which, if the theory of Sir Astley is correct ought to have closed the apertures—certainly it would not open them.

Velpeau says that the sudden contraction of the *cremaster muscle* has been known to reduce a strangulated hernia. (Anat. v. 2, p. 176.)

Emetics probably sometimes accomplish the reduction by inducing a violent anti-peristaltic action.

I am aware that Dr. Brinton denied that anti-peristalsis ever occurred under any circumstances, but having myself seen this anti-peristalsis in the intestines of a lamb recently killed, I must deny the correctness of his conclusions.

Cathartics, which were also at one time much used, probably act alone by the production of peristaltic or anti-peristaltic action. At least we see no other way of explaining their reputed efficiency; and in fact to these motions their effects have generally been ascribed. "The idea is," says Fergusson, "that the muscular fibres of the intestines may draw the protruded portion within the abdominal cavity again." (*Practical Surgery*, 4th Amer. Ed., p. 535.) Skey says "The object, one should presume, was the endeavor to drag up the bowel from the sac, by the mechanical influence of the medicine on the intestine." (*Operative Surgery*, 1st Amer. Ed., p. 440.)

Neither emetics nor cathartics are any longer recommended by surgeons, chiefly for the reason that unless they are successful they are pretty certain to do harm, by increasing the inflammatory action.

Surgeons have constantly recommended that previous to the employment of taxis, the *bladder should be emptied*. The sole effect of which must be to diminish the pressure from within outwards, and thus to permit the hernia to be more easily withdrawn.

Mr. O'Beirne has recommended that *the gas be withdrawn from the lower gut* as far as possible, by the introduction of a large tube into the rectum; and the philosophy of this measure must be the same as emptying the bladder. They are both in some sense negative measures, intended only to remove resistance to taxis, or to permit the viscera to return by their own normal action or by gravitation.

Enemata, and especially stimulating enemata, often employed, act in two ways; first, by removing both flatus and fecal matter; and second, by inducing a violent peristaltic action in the lower gut, which may in some cases, extend to the seat of stricture and draw the gut in. (H. H. Smith, *Practical Surg.*, p. 650, Gross, v. 2, p. 588; Lizars, p. 344.)

But injections of *tobacco-smoke* and of the infusions of tobacco, add to their evacuating and peristaltic effects, intense nausea, and prostration, and have in this way been known to cause death. Those who employed them have generally attributed their efficacy to this prostration alone, by virtue of which the apertures were relaxed. Gibson says it relaxes the abdominal muscles, and Fergusson thinks it acts as an anti-spasmodic.

We have refused to accept of the theory that any agents possess the power of opening these apertures in any material degree, except in the most rare and exceptional cases; and we are disposed to attribute the good effects of tobacco enemata to the same causes which render other purgative enemata successful; and to their additional power in relaxing the abdominal muscles, which were constantly tending to displace the hernia outwards.

Having used tobacco enemata occasionally in the early part of my practice, I was led to observe and study its modes of action; and the conclusion reached was, that whenever it reduced a hernia this result was chiefly or wholly attained by the violent peristaltic action which it induced. In each instance

the rumbling of the bowels—the borborygma—preceded the reduction by a few seconds; and that the production by nausea and general muscular prostration was second in importance to the peristaltis.

I will mention here, merely as a matter of literary curiosity, and as illustrating the loose and unphilosophical manner in which eminent surgeons have discussed the mechanism of the reduction in strangulated hernia, that A. Tavernier advises to "excite the peristaltic motion of the bowels, by means of *tonic and discutient applications*." (*Elements of Operative Surgery, with Notes and Additions*. By S. D. Gross. Amer. Ed., 1829, p. 287.)

The manner in which *Chloroform, and other anæsthetics, bleeding, and the warm bath*, encourage or effect the reduction of a strangulated hernia, is not, we repeat, by relaxing the apertures. They all have a common mode of action; differing probably only in degree.

Chloroform is admitted to be the most potent. Chloroform paralyzes all the voluntary muscles of the body, including the abdominal muscles, and prevents even the diaphragm from exercising its voluntary power of downward expulsion. This agent removes, therefore, most effectually the resistance usually afforded by these muscles to the return of the hernia, and permits taxis to be successful, when it otherwise could not be. How much resistance these muscles offer, in their normal state, to the return of a hernia, is readily understood when we recall the difficulty which we often encounter in returning a hernia, even after the stricture is cut, unless the patient is under the influence of chloroform; and especially when we recall examples in which the patient, not being under the influence of an anæsthetic receives a wound of two or three inches in extent in the abdominal walls, as in certain gunshot or bayonet wounds. In such cases it is almost impossible to prevent large portions of both intestine and omentum from being thrust out. If, however, the wound is much larger, as in certain operations of ovariectomy, and other abdominal sections—so large as to abate or extinguish the expulsive power of the muscles—the tendency to extrusion of the viscera is very much lessened.

Bleeding and the warm bath, both of which, in order to be effective, nearly all have agreed, must be carried to the point of producing syncope, produce their effects, so far as the reduction of the hernia is concerned, in the same way as chloroform—by paralyzing the muscles and overcoming their resistance to taxis.

I think the same may be said of *Opium* in full doses, although its effects are a little more obscure, and it is probably less efficient. Fergusson thinks that it acts as an anti-spasmodic.

Mr. Lawrence, who does not think much of venesection as a means of relieving strangulation says—"Venesection cannot enlarge the openings through which the hernial contents have descended"; and he adds that, unlike tobacco enemata, it has not the power of exciting an action of the viscera, but he evidently thinks that tobacco enemata, his favorite remedy, and which he ranks second only to taxis, has the power of enlarging these openings, since he reports a case, in which, as soon as the patient was brought under the influence of the tobacco, "the

stricture gave way." Certainly we can attach no other meaning to these words than that the stricture was relaxed and enlarged. Why, if this were so, might not bleeding to syncope produce the same effect?

Probably neither of these agents relaxed the openings, but if one did, the other might; and it serves to illustrate the vague, uncertain and contradictory explanations so often found in the writings of the best surgical authorities as to the mechanism of reduction in strangulated hernia.

The writer wishes to make at this point a new suggestion, namely—that possibly, while under the influence of these last named agents, namely, chloroform, bleeding to syncope, the warm bath to syncope, &c., and during the period of unconsciousness and general paralysis of voluntary muscular power which ensues, the hernia may be actually withdrawn by peristaltic or anti-peristaltic action.

One of the pretty frequent effects of these conditions is violent emesis or retching; and an occasional effect is sudden and expulsive evacuation of the rectum; implying the occurrence of increased anti-peristaltic and peristaltic action.

It is known that death does not immediately suspend these actions, and in some recent observations upon the viscera of calves, I have found these motions, especially peristalsis, to continue quite active for 10 or 20 minutes after death, and probably under favorable circumstances as to temperature, &c., it would continue much longer. Whether this motion is more active than before death I have not been able to determine; but Niemeyer says that in animals, after paralysis of the cerebro-spinal nerves, there is for a time increased intestinal motion. —*Niemeyer's Text Book of Practical Medicine*, vol. I., p. 564. He also refers to the fact that it is common to find several invaginations in children after death, especially when death has occurred from hydrocephalus; which invaginations have probably taken place in the act of death, or subsequently. —*Ibid.*, p. 564.

These facts, especially the invaginations, would seem to imply a power of motion and consequently of inward traction, under these conditions, which far exceed the normal peristaltic motions. Physiologists have ascribed these increased motions to various causes; and my young friend Dr. Birdsal suggests that it may be due to the absence of the inhibitory influence of the spinal and cerebral nerves. Possibly it only represents the last convulsive effort of dying nature; but the facts seem material to our argument, whatever may be their explanation; and they lead us, together with what we have before observed, to suggest that probably the same increased intestinal motion accompanies the temporary suspension of consciousness, when the patient is under the influence of an anæsthetic, or in a condition of syncope from loss of blood or from the warm bath. Just as anæsthetics are known not to arrest uterine contractions. It may be, therefore, that by permitting the continuance or causing an increase of peristalsis and anti-peristalsis these agents may favor the reduction. And this may explain in some measure the advantage which these means possess over opium, and their greater efficacy.

What positions are most efficient in the production of inward traction upon the hernia?

With very few exceptions herniæ occur in the lower portions of the abdominal cavity, and it is evident that, in order to be effective, the position of the body should be such as that the traction would be more or less in the direction of the upper portion of the abdominal cavity; that is to say, if this position is not incompatible with the favorable application of taxis, and with, perhaps, a relaxed condition of the abdominal muscles. Although I do not regard this latter condition as of so much importance as that it should have the preference when it precluded a resort to the posture most advantageous for traction. I think, however, these conditions are never incompatible, and that they may always be combined if required.

Flexing the thigh upon the body, adducting and rotating it inwards, a position recommended by most surgical writers, as facilitating taxis, may be and probably is useful in some cases of inguinal or of femoral herniæ as we have already explained, by relaxing the external apertures, but not as a means of relaxing the internal apertures, where generally the stricture is situated. The position would certainly be useful if the stricture were external; and even if it were internal, it might occasionally be in a small degree useful by enabling the surgeon to make his taxis bear more directly upon the internal rings. While therefore it ought to be employed in all such cases, it has no effect in the way of inward traction, and its value in any respect seems to me to have been greatly overestimated, at least when put in comparison with other postural methods, which have in general been less recommended or employed.

Elevating the hips slightly, by a pillow, as practiced by many surgeons, and as practiced by myself in some of the cases reported in this paper, has accomplished a reduction in many cases, and there can be no doubt that the result was effected mainly by the slight displacement or withdrawal of the viscera from the lower part of the abdomen.

Elevation of both the hips and shoulders slightly, or what might be termed the supine *incurved* method, recommended by Sir Astley Cooper (On Hernia, Amer. Ed. p. 81) Lawrence, Dorsey (Dorsey's Surg. vol. 2, p. 25). Gross, (Last Ed. vol. 2, p. 586) Chelius (Surgery, vol. 2, p. 290) Ashhurst (Surgery, p. 759) and others, possibly possess some advantage over elevation of the hips alone, inasmuch as it relaxes more completely the abdominal muscles.

Gross says "turning the patient *upon the side opposite the affected one*, sometimes answers the purpose, especially when there is much flatus, the distended bowels drawing the protruded parts backwards and upwards" (*Gross Surg. 5th Ed. vol. 2, p. 590.*) We have here a distinct recognition of the value of traction as affected by position.

Lawrence suggests the propriety of elevating both the hips and the body slightly in order to "relax the tendon of the external oblique." *Treatise on ruptures*, by Wm. Lawrence, F. R. S. 3^d, London, Ed. 1816, p. 114; a suggestion which is wholly inconsistent with a statement made by himself at p. 26, of the same work, that "those attitudes of the body, in which the tendinous apertures at the ring and crural arch are stretched, penuthesis, (as when the trunk is

thrown backwards on the thighs, and the chest extended on the pelvis, are favorable to the occurrence of ruptures, because the abdominal muscles, in this tense state, both enlarge the apertures, and press out the viscera." That this position of extreme dorsal flexion, tends to press out the viscera, is no doubt true, but that the exactly opposite conditions of dorsal flexion and dorsal extension enlarge the apertures, cannot be true. The statements are inconsistent with each other, as they are, also, with another statement made by Mr. Lawrence, namely "that the openings through which hernia generally protrude, being tendinous, cannot contract or diminish in capacity," p. 48; and again, "The tendinous openings through which hernia generally protrude, cannot, by their nature, undergo much change," p. 49. This last statement may be accepted as a near approach to the truth.

Mr. Winslow, first suggested a posture, which Mr. Skey remarks was much practiced during the last century in cases of inguinal and femoral herniæ, which consisted in *causing the patient to rest on his knees and elbows*, while taxis was employed. (*Med. Essays and obs.*, by Wm. Lewis, London, 1746, p. 413). Several other writers have alluded to this method favorably, and it is said that the priests sometimes suggested this position of extreme humility, in conjunction with prayer, and when successful the result was ascribed to Divine interposition.

You will be naturally reminded that this is similar to certain positions, recommended by gynecologists in operations upon the vagina and uterus, in which positions the displacement of the viscera toward the chest causes a marked elongation and expansion of the vagina.

Finally, we will consider the *position in which the entire body is placed upon a plane more or less inclined with the head downward*. This may be called the *inverted inclined*, or the *inverted vertical position*, one or the other of which positions were successfully adopted in several of the cases reported at the beginning of this paper.

Desault says that this method was first suggested by Fabricius Aguapendente, and that it was approved by Corriallard, Sharp, Bell & Louis. (*Surg. Works of P. J. Desault*, Amer. Ed., Vol. 1, p. 298.)

Richard Wiseman, Serjeant Chirurgion to Charles the Second, the first edition of whose book was published in 1676, says "If after the above mentioned endeavors to reduce the hernia you do not succeed, you ought to consider what the impediment is, and proceed accordingly to let blood, purge or vomit, or put him into a semicupium, keeping on his bag truss the while: after which, he may, if occasion require, be carried to and fro upon the back of a strong man, with his head downward, by which the prolapsed bowels are often reduced. Mr. Smith, the Truss-maker, told me he had made such an engine by which he set them on their heads, and thereby had reduced many, which could not otherwise be relieved." (*Chirurgical Treatises*, 6th Ed., p. 248.)

Johannes de Gorter, in his 1519th observation, speaks of reducing a hernia by taxis, "*dum interim æger supinus jaceat, trunco corporis superiore decubiore*" (while the patient lying upon his back, the upper portion of his body was inclined downwards). (*Chirurgia et Replicata*, 1742, p. 352.)

Says Percival Pott: "The posture of the body and the disposition of the lower limbs may be made very assistant in this operation, when the difficulty is considerable; the nearer the posture approaches to what is commonly called standing on the head, the better, as it causes the whole packet of small intestines to hang, as it were, by the strangulated portion, and may therefore disengage it. A little time and pains spent in this manner will frequently be attended with success, and obtain a return of the part." (*Chirurgical Works*, 1st Amer. Ed., Vol. 1, p. 335.)

M. Velpeau considers this method accompanied with a gentle shaking of succussion at some length, and speaks of it as having been recommended by M. Ribes, Louis and Hey, while he thinks it probable that the process may not be of very great importance, he contends that Mr. Lawrence is in error when he says that the abdominal viscera are too exactly supported in every part of them for the mere position of the patient to draw them either in one direction or another. Any person, he remarks, can satisfy himself to the contrary by the experiment. He does not think therefore that it merits the oblivion into which it has fallen, nor the ridicule which has been cast upon it at the present day.

This author adds that Linacier, with the view of regulating the succussion into a method, and in order to generalize it, contrived in 1819 a kind of vibratory bed or tumbril, provided with cushions, and upon which the patient was adjusted in such a manner as to enable us to move him more or less violently by successively lowering and elevating the upper part of the apparatus. M. Velpeau would prefer however the ordinary method, by which the belly could be maintained in a flexed or incurved position.

It is quite probable that in expressing this preference M. Velpeau had in view the relaxation of the rings, to which, as we have seen, he attached considerable importance. (*Médecine Opératoire*, Deuxième Ed., Tom. Quatrième, p. 68; Paris, 1839.)

Professor James Miller, of Edinburgh, refers to this method in a note to his Practice of Surg., p. 395, as having been recommended in the *British and Foreign Rev.* for April, 1850, p. 491, as a means of pulling the contents out of the sac.

Druitt says:—"In many cases of strangulated hernia, resisting the ordinary application of the taxis, reduction has been effected by raising the pelvis and depressing the shoulders, so as to turn the trunk of the patient topsy-turvy. This is best done by raising the pelvis on a chair placed under the lower part of the mattress of the bed, and letting the patient's head and shoulders rest upon the bed itself. Care must be taken to keep the legs bent up to the body and the trunk itself bent forward, so as to relax completely the aponeurotic structures in the groin. Inversion of the patient acts by the gravitation of the viscera towards the diaphragm, and the dragging of the mesentery and omentum out of the neck of the sac. This, aided by a gentle application of the taxis, and by frictions over the belly made in a direction from the strangulated part, will often succeed in overcoming the strangulation when other means fail." (*Surgeons Vade Mecum*, 10th Eng. Ed., 1870, p. 513.)

Mr. John Birkett writes: "Herniæ have been

replaced whilst completely reversing the ordinary position of the trunk, by keeping the head nearest the ground and the pelvis upwards. A patient may be placed in this posture by hanging over the back of a man, or over the side of a high bedstead or sofa, whilst the knees are at the same time flexed. Another method consists in encircling the mesogastrium with a folded sheet or round-towel, and at the same time drawing the contents of the pelvic region from below upwards, whilst the patient lies in a recumbent posture." *Holmes' System of Surgery, 2d Ed., New York: vol. 4, p. 700*

Erichsen speaks of this method as having been successfully employed. *Science and Art of Surgery, Amer. Ed. of 1873; vol. 2, p. 564.*

In this country, Gross and Ashhurst have spoken of inversion of the body approvingly.

Mr. Lawrence had never seen this method tried, but he regarded it as utterly useless, inasmuch as it was impossible to change the position of the viscera in the abdominal cavity by posture. To this remarkable statement, M. Velpeau, as we have seen, has made a sufficient reply; but the crowning inconsistency of Mr. Lawrence is found in the fact that, while he denies that any displacement of the abdominal viscera can occur when the body is actually inverted, he advises to raise the hips a little, in order to favor the gravitation of the viscera from the point of protrusion of the hernia. *P. 114, 117.*

Bryant does not think the method worthy of special commendation. *Practice of Surgery, Eng. Ed. of 1872; p. 340.*

Sir Astley Cooper says in his experience it has always failed whenever taxis, properly employed, had already failed; but he proceeds to say that he has seen "the sudden ascent of the diaphragm in the act of coughing" reduce a strangulated hernia. *On Hernia; Amer. Ed., p. 82.* The principle upon which the reduction was effected was the same as by inversion; yet it is scarcely necessary to speak of its comparative inefficiency. That the method should have failed in a certain number of cases where taxis had already failed, is not strange. It has often failed in my experience also, but it is enough to say, whatever may have been the experience of others, that it has also often succeeded, when taxis has been fairly tried, and when herniotomy seemed to be the only remaining alternative.

This completes the testimony of authority upon the question of the value of inversion of the body as a means of reducing hernia, so far as I have been able to obtain it. Three or four surgeons of distinction have not thought it of much or of any value. A large number have spoken of it in terms of commendation or approval, while some writers upon hernia, such as Symes, Turner, B. Cooper, Pirrie, Dupuytren, Gibson and others, have made no allusion to it whatever.

I may add, that the objection hinted at by one or two of the writers referred to in the previous pages, and the only serious ground of objection offered by any writer, namely, that the inverted position might do harm by pulling too hard when the parts are inflamed, applies with equal and much more force to taxis; and this is a matter, which we think, can be left very safely to the discretion of the surgeon. In my experience it has never caused pain at the seat

of stricture, while taxis often or always has. The very statement, however, of this possible danger, may be taken as one of the proofs of its efficiency.

I have omitted purposely to speak of the value of certain agents in aiding the reduction of strangulated hernia, partly because I did not consider their agency very important, and partly because they were rather outside of the scope of my argument.

In the case of most strangulated intestinal herniæ, the protruding gut contains only air, with perhaps a small amount of thin fluid. The aperture being only large enough to permit the escape of the gut, and the walls of the aperture being unyielding, immediately, or in a very short time, the vessels coursing from without inwards become obstructed, and a congestion takes place in the portion of gut outside the stricture. This increases more or less rapidly, causing at first, serous effusions, or œdema, and eventually true inflammatory effusions occur. The gut is thus buttonholed, and cannot easily be pushed back, or drawn in.

It would naturally be supposed that under these circumstances the first thing to be done would be to reduce the congestion and swelling of the protruded gut. For this purpose, accordingly, patients have been bled, generally and locally, and ice has been applied externally; and no doubt with a certain amount of good effect, especially when the pathological condition had not passed beyond the stage of mere vascular congestion, without effusions.

But it is easy to see that ordinarily, after a very few hours of constriction, the influence of these or of any other agents in this direction must have ceased. We have no means of forcing or inviting back the blood into the general circulation, from a part whose vessels are all tied by a ligature. It cannot be done in the case of a finger or of a leg which is swollen from constriction. Indeed the more ice is applied in this condition, the more certain it is that the limb will die. You must first remove the constriction.

If, however, these agents may be of some use in the first or earliest periods of constriction, and probably they are, then any posture which favors the return of blood by gravitation, would be of equal if not of greater service; and this method of withdrawing the blood would not be attended with such hazards of causing gangrene, as are known to attend the use of ice, even if it were employed at a period when it could be of no use. The principle is often employed in surgery in order to drain off the blood from parts which are bleeding; and it has been even employed to arrest dangerous uterine hemorrhages.

Having spoken of the "button-holing" of the viscera by the congestion and inflammatory effusions, it is necessary to say that, in the case of an intestine, this condition is aggravated by the expansions of the intestine outside of the stricture by gas. Sometimes this gaseous expansion is the chief cause of the button-holing. It may cause incarceration before the occurrence of strangulation, whenever the channel of the intestine is completely closed, so that no air can be pressed back, but the vascular circulation is not interrupted. That this may be alone the cause of incarceration has been demonstrated by the speedy reduction of the hernia in some

cases, when the gas has been withdrawn by aspiration: but this expedient fails when there is actual vascular strangulation.

Ice applied locally, in recent or not completely strangulated cases, may reduce the congestion of the vessels, and by its weight may make moderate and continued taxis—and when conjoined with rest in a suitable position, the abdominal muscles being relaxed by a full opiate, relief of the strangulation is occasionally obtained.

CONCLUSIONS.

First, as to our ability to increase the diameter of the hernial apertures, except by resort to herniotomy.

1. The hernial apertures are not, only with few exceptions, and then usually only in a small degree, either directly or indirectly under the control of the muscles. Relaxation of the muscles does not therefore usually relieve hernial strangulation.

Muscular spasm is never a cause of strangulation.

2. Posture, whether intended to relax the muscles, the tendons or the fasciæ, does not relax the apertures where the seat of stricture is in the sac itself, when the hernial aperture is old and has become established, or fixed in its form, or has become a canal in some sense independent of the original aperture. Nor does it relax these openings in cases of inguinal or femoral hernia, when the strictures are at the internal rings; and in both of these herniæ the strictures are, in most cases, at the internal rings.

3. Neither ointments, nor warm, nor cold applications effect in any way these apertures, or the seats of stricture, whether these be superficial or deep seated.

4. Neither chloroform, nor bleeding, nor the hot bath, nor indeed any other general or constitutional measures affect the hernial apertures, that is, cause them to become relaxed and to dilate, except, perhaps in the case of recent hernia which have suddenly pushed their way through tendinous or muscular fibres; and even in these cases, their effects are often questionable, and certainly trivial.

5. In short, hernial apertures can seldom be relaxed, or opened by any measure except by a surgical operation. The apertures do not, only with rare exceptions, actively compress the protruding viscera; but the viscera become constricted by pressure against the apertures. Relaxation of these apertures is not, therefore, ordinarily a part of the mechanism of the release of a strangulation and of the return of the viscera.

Second; as to the effects of Taxis and Inward Traction.

1. Taxis, or pressure from without in, judiciously applied, is first in point of importance as a means of reducing strangulated hernia.

2. Inward traction, judiciously employed, is only second in point of importance to taxis. Inward traction is effected indirectly by paralysis of the abdominal muscles, through the agency of posture or of general muscular relaxants, and by emptying the bladder and lower gut. It is effected directly by peristalsis, anti-peristalsis, and gravitation through the agency of posture.

Hitherto, relaxation of the apertures has occupied the second rank, or the position now assigned to inward traction, and the latter has been either entirely

disregarded, or it has been assigned only to a subordinate position.

3. Emptying the bladder and rectum and distracting the attention of the patient, are measures which remove certain obstacles to reduction by taxis, and indirectly favor or encourage inward traction.

4. Chloroform, bleeding to syncope, and the hot bath to syncope act indirectly by overcoming the resistance of the abdominal muscles; and, possibly, they may in some measure effect their results directly, by increasing peristaltic or anti-peristaltic motions, or at least by permitting the normal actions of the intestines to continue, while the abdominal muscles are in a state of paralysis.

Ice as a local application, can only relieve the button-holing when it is due to congestion of the vessels; and then only when the circulation in the vessels is not completely arrested. If the patient is at the same time reposing upon his back, it serves also as a continued taxis.

5. Opium operates, probably, only indirectly, by causing a partial paralysis of the abdominal muscles.

6. Emetics probably effect their good results directly, by virtue of the inward traction caused by the upheaval of the abdominal viscera, and by anti-peristalsis.

7. Purgatives, given by the mouth, act directly by inducing anti-peristalsis above the seat of stricture; and in some cases peristalsis below the seat of stricture. They sometimes also cause vomiting. Their mode of action is, therefore, similar to, or identical with emetics. They are both liable to do harm when not successful.

8. Stimulating enemata, cause generally only violent peristalsis, but occasionally anti-peristalsis. Tobacco enemata operate in the same way; and perhaps, sometimes by causing general muscular paralysis, and thus removing the resistance of the abdominal muscles. Their effects upon the hernia are then both direct and indirect.

9. All postures in which the viscera are dragged toward the upper portion of the abdominal cavity aid reduction directly, by causing an inward traction; and that posture is the best, which, while it does not interfere with taxis and relaxation of the abdominal muscles, makes the most effective inward traction. Inversion of the body, however, displaces the viscera so far towards the upper part of the body that the abdominal muscles cease to have any power to expel the viscera downwards, and their relaxation is then a matter of no consequence.

HOSPITAL RECORDS.

GOOD SAMARITAN HOSPITAL, CINCINNATI, OHIO.

(Reported by LEVERETT S. KELSEY, M. D., House Surgeon.)

GUNSHOT WOUND OF LEG—COMMUNION OF TIBIA AND FRACTURE OF FIBULA.

Thomas Spencer, colored. æt 26, U. S., single, body snatcher. On the night of Feb. 26, while stealing a body, he was detected and shot at with a gun loaded with buck and bird shot. The charge struck him in the front of the left leg, at about its

middle, comminuting the tibia badly and fracturing the fibula. He was first seen by Dr. Ransohoff. A buckshot was cut out of the upper and outer border of the calf of the leg, one or two smaller shot were seen but their removal not attempted. Just below the knee and on the inner side of the leg were two small flesh wounds. Dr. Ransohoff temporarily dressed the limb with plaster Paris roller, and brought him to the hospital.

Temporary dressing removed. The leg was considerably swollen, had an angry look and, at one or two points, was somewhat devoid of feeling. Crepitation and movements of tibia fragments very distinct. Suffers no pain except on movement of the limb. A Bavarian dressing was prepared and applied.

March 1st.—Dressing opened to-day and limb dressed with carbolized vaseline.

March 4th.—Wounds have been dressed twice daily; washed with carbolized water and covered with carbolized vaseline. Dr. Dawson took charge of the case to-day. Quite comfortable. Has but little pain.

March 10th.—Patient was brought before class and a new Bavarian dressing applied as the first dressing had not secured perfect extension. Ordered leg to be elevated on inclined plane.

March 11th.—Limb much improved by elevation. Swelling has subsided and leg has a much better general appearance. A portion of the splint has been cut away to allow free drainage from wound caused by entrance of the buckshot. Suppuration therefrom quite free. A point of broken bone has caused sloughing and protruded itself, it being separated by a small bridge of tissue from the shot opening.

March 15th.—Bridge between openings broken down. Suppuration quite free. Odor very foul. Used disinfectants to wound and about bed. Temperature has been but little elevated. Given some quinine. Is cheerful.

April 4th.—Patient brought before the class, etherized and the protruding spicula of bone, measuring $2\frac{1}{2}$ inches in length, removed. It was carious. A new plaster Paris dressing (Bavarian) was applied.

April 10th.—Doing well. The fibula has firmly united. The wound from which the bone was removed has continued to granulate, and leaves but a small opening. Limb is in good position, but somewhat shortened. Has been going about the ward for three weeks on crutches.

April 17th.—Splint was cut yesterday so as to allow motion of the knee. Motion moderately free. Bones firmly united.

April 27th.—Doing well. Movement in knee improved.

April 30th.—Splint removed and patient ordered to bear a little weight on the limb.

May 7th.—Small piece of bone came out of limb at the seat of injury. Leg somewhat swelled and tender.

May 14th.—Soreness gone. Can now bear entire weight on limb without causing any pain.

May 29th.—Discharged cured.

TRANSLATIONS.

CLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JOHN A. WYETH, M.D.

ANÆSTHESIA PRODUCED BY THE FUMES OF
AZOTIC P. BERT.

The first application of this new anæsthetic was made on Feb. 13 last, at Paris. The subject was a female, æt. 20, and the operation was the removal of an ingrowing nail, by tearing it out of its matrix. The operation was made under a heavy atmospheric pressure, which, however, gave the operator and attendants no other inconvenience than a sense of extreme tension of the tympanum and certain "rumblings in the ears," which were relieved by the inflation of the tympanic cavity. M. Préterre applied to the nares and mouth of the patient the inhalation mouth-piece, and turned on the gas, the mixture being composed of AzO_2 , 85 parts and O , 15 parts per hundred. After some seconds of hesitation, the patient inhaled the gas freely, and in a quarter of a minute insensibility and muscular relaxation were complete. The operation was then made, and there was no indication of pain or any reflex movements on the part of the patient. The eye remained closed and the pupil was slightly contracted. At the end of 4 minutes, as M. Labbé was dressing the wound, there were some contractions of the muscles of the hands and feet.

The inhalation was discontinued at the end of 4 minutes; the patient remained motionless for about half a minute and then remarked, "That hurts me very badly." In less than a minute after this, she sat up and declared that she had absolutely felt no pain; that she "had been on a voyage to heaven," etc. Later she complained of a slight headache, which she said was habitual. During the anæsthesia, the pulse remained steady, and the skin retained its normal hue. The conclusion is that under high pressure, a condition of complete unconsciousness can be obtained and maintained for a long period without danger of asphyxia, that the condition of anæsthesia is more rapidly induced (it being almost instantaneous) and that the patient is restored almost immediately to consciousness upon the withdrawal of the agent.—*France Medicale*, *March 12*, 1879, p. 164.

OVARIOTOMY—CONSECUTIVE PREGNANCY—DELIVERY AT TERM—RECOVERY—POLAILLON.

Patient, æt. 32, gave birth to an infant 6 years ago. For a year back she has noticed a swelling in the right side of the abdomen, the growth of which has given her so much pain and inconvenience that she was compelled to forego her occupation as chamber-maid. Eliminating, in the differential diagnosis, floating kidney, tumor of the intestine, or mesentery, fibroid of the uterus, the diagnosis of tumor of the right ovary, probably cystic, was given. Patient had menstruated regularly and her condition was good. Ovariectomy was performed Nov. 21, 1877. The instruments and sponges were dipped in pure alcohol, and then in 40 per cent. carbolic acid, but no spray was used. The tumor was multilocular.

Two points of adhesion were ligatured with catgut on account of great vascularity. The ligatures were cut short and left in the abdominal cavity. The main pedicle was tied with an iron wire, and the incision closed with silver sutures. Oakum batting was laid over the wound, and this covered over with collodion.

The patient made a good recovery. About the middle of April, 1878, (5 months after the foregoing operation) this patient became pregnant. January 8, 1879, she came to the lying-in Hospital and was delivered of a female child, which was stillborn. Weight, 2700 grammes. The labor was natural, and the recovery prompt. While there is nothing extraordinary in the fact that a woman may become pregnant having only one ovary, yet it does seem unusual that a fecundated ovum could be carried to term in a uterus bound down to the abdominal tissues by the cicatrization following ovariectomy. Emiliani de Faluza operated in 1815 upon a young woman who gave birth to twins the year following. Koeberlé, Love, D'Olier, Marzolo and Balding also report similar cases.—*France Médicale*, March 26 1879, p. 194.

BERIBERI—A RARE AND PECULIAR AFFECTION— M. LABOULENE.

This disease, peculiar to South America, has so rarely been observed by European scientists that it will be of double interest to our readers. The patient, a South American of French parentage, is 31 years old. For seven years he was a resident of Venezuela, and then in France until his eighteenth year, when he removed to Brazil, where he has since resided. Being well educated, he is able to give an intelligent history of his case. His father died with dysentery; mother still living. Has no strumous or syphilitic antecedents. Has had gonorrhœa. 38 months since his malady began, while residing 26° south of the equator. He suffered from an affection of the liver and spleen, characterized by enlargement. This disappeared under the use of iodine washes. Ten months later he was seized with weakness of the inferior extremities, accompanied with pain, to such an extent that he could scarcely walk. No fever. The loss of power in the legs was symmetrical. He does not know that the joints were any more painful than the muscles and skin. There was no tumefaction whatever. Two of the most celebrated local physicians pronounced the disease as "Beriberi." Twelve months from the invasion the upper extremities were attacked, and he was compelled to keep in bed. The paralysis increased on the left side, and severe lancinating pains ran down the muscles of the left arm. Anorexia, vomiting, constipation and vertigo followed. He was told that he would inevitably die unless he left Brazil. The voyage was painful to him, and fatal to two companions suffering from this same affection. Arriving at Paris, his condition was: Atrophy of the extremities to about an equal degree; the feet forcibly extended and the soles turned in; the great toes flexed to such an extreme degree that the second phalanx is bent upon the first. The extensor group of muscles of the leg are very much atrophied. The paralysis of

the legs is almost complete, the left somewhat more so than the right. There is spasmodic muscular contraction. He cannot stand alone. The arms are atrophied and paralyzed, the left the most impaired. There is no disturbance of the intellect or organs of sense; no albuminuria. Heart, lungs and liver normal. On the left side of the body there has been two successive vesicular eruptions, which lasted a few days. Under the proper hygienic care these symptoms gradually disappeared, and in two years after arriving in Paris he was perfectly well.—*Gaz. des. Hop.*, No. 26, 1879, p. 203.

ANTI-HEMORRHAGIC PANCREOTITIS—DR. HILBY.

Patient, male, æt. 30, strong and corpulent, addicted to drink, but excepting an occasional palpitation of the heart, healthy, was suddenly seized with a sense of fulness and distension in the epigastrium, which steadily grew worse, accompanied with great unrest, sense of depression in præcordial region, and vomiting. There was no chill, heart beats increased in frequency, diminished in force, extremities cool, respiration accelerated, epigastrium tympanitic and painful. Gastric derangement was diagnosed, as there was no lesion of any organ recognizable, the stomach pump was introduced, later an emetic and after that an opiate. The unfavorable symptoms gradually increased, delirium ensued and on the evening of the second day, collapse and death. Autopsy—Pancreas twice its normal size, dark violet color and of firm consistence. In the head of this organ, between the two principal lobes were several points of extravasation varying from a millet seed to a cherry stone in size. The renal vein was greatly distended and filled with clots. Liver fatty and enlarged. Heart, especially the left side, hypertrophied. Other organs normal.

Death probably due to pressure by the distended pancreas on the semilunar ganglion of the solar plexus, in connection with the already weakened condition of the heart and the hypertrophied liver impinging on the cavity of the thorax.—*Deutsche Med. Woch.*: January 11, 1879, p. 19.

THE HOSPITAL GAZETTE.

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

EDWARD J. BERNINGHAM, A.M., M.D. *Editor.*
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EDITORIAL.

THE LESSON OF THE MONUMENT—McDOWELL.

Ripples of influence wash the shores of eternity; our life's deeds never cease in their march. Death can never come to the undying; the noble act of to-day has assured an eternal reward of glory, and the unkind word or deed brings a gloom that outlasts time. When a pebble is dropped upon placid waters, a beautiful circlet comes, then another, urging the first outward, another, and another, until the whole surface is moved to the shore; the dropping was a simple act,—but a flash of thought, executed; the ripples were small at first, increasing and extending to the farthest confines, Nature's laws controlling the movement of her elements, when man's simple act had stirred them. He willed and acted, then his reign ceased; his power reached no further, stern, unchanging Nature took control.

Our words and deeds are pebbles dropped, too often with little heed: their influence spreads as ripples. The words and deeds were ours, they could, or not, have been as we willed; the influence was Fate's, changeless and unchanging, obedient to necessity alone. Man's boasted strength was as naught after the beginning, and though he called Nature from her slumber, he cannot lull her into quiet. If this is so, then life needs to be abundant in good intentions, and brave deeds therefrom, that, after the day of action has gone, the eternity of influence shall show them forth resplendent and beautiful, in securing blessings to others.

Such thoughts come, when we contemplate the strange scene of the gifted and great of this day gathering around the grassy mound in the little churchyard, under which, a half-century ago, were placed the remains of the then village doctor; that grassy mound in far distant Kentucky, and those gifted and great men, whose choice and duty it is

to alleviate suffering, and to make clear to others the way to benefit those in affliction; some of them the ablest physicians of the world, the most untiring and painstaking teachers of medicine of any land.

Drawn thither, not by the crumbling dust remaining of the mortality entombed a half-century ago, but by the after-life of the man, the Kentucky State Medical Society, and its distinguished guests, were proud to symbolize their high appreciation of his earnest and careful study, his bravery and his merit, by erecting a handsome obelisk of granite to the memory of Ephraim McDowell, M. D., in the cemetery at Danville, Kentucky.

The sides bore the inscriptions:

"Ephraim McDowell, M.D., born in Rockbridge County, Va., Nov. 11, 1771; came to Kentucky in 1782; attended the University of Edinburgh in 1793 and 1794; located at Danville in 1795; performed his first ovariectomy in 1809; died in Danville June 25th, 1830."

"To the memory of Ephraim McDowell, who in inaugurating a great surgical operation, became a benefactor to his race."

"Erected by the Kentucky State Medical Society, 1879."

"Honor to whom honor is due."

For fifty years neither storied urn, nor tall granite shaft pointed out his resting place, nor were they needed; the grand accomplishment of his life had made his work a source of power to an entire profession and the preservation of imperilled mothers' lives. Of his name and fame, many, who followed his lead, and many, whose lives were saved by the operation, which his skill introduced, knew nothing, yet he lived, and lives, and ever will live.

Ovariectomy is so generally practiced that few stop to think what was its origin, what was its purpose. No chance threw this boon to suffering humanity; it was born of love and devotion. Standing so often at the bedside where mothers lay dying, unable to do more than soothe and pity, the originator's mind received a mighty shock, and he realized that certainly death was not always inevitable. He called science to his aid, courted the hidden truths of anatomy, dissected, watched and waited, investigated and compared, driven by the desire to conquer a foe to his race, yet checked by prudence and courage that come with honest intentions, he foresaw success before he touched the steel. Armed with the courage of conviction, his hand was steady and ready when the day of trial came. Science triumphed and McDowell lives in the memory of the thousands benefited by his operation.

Such records should more frequently adorn history's pages, and will, when the rising, the active

learn that their deeds, noble and ignoble, live after them, forever,—the one, a ceaseless blessing; the other, a never-ending curse.

The field for effort has scarcely been scanned; opportunities and demands for richer harvests await earnest workers. Young practitioners in medicine, consecrate yourselves anew to your self-appointed task, and emulate the life, the toil, the honesty of purpose of McDowell; your usefulness will outlive your mortality.

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week, pills. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

154. *Pilulæ Gambogiæ Co.*

MILLER'S PILLS.

R Pulv. Scammon.....	} aa gr. 20	
Pulv. Aloes.....		
Pulv. Gambogiæ.....		
Hydrarg. Chlor. Mit.....		
Potass. Bitart.....		
Ext. Taraxaci.....		q. s.

Mix. Divide into 20 pills.

155. *Pilulæ Lavantes* (99TH ST.)

R Pulv. Rhei.....		
Pulv. Aloes.....	aa gr. 15	
Extr. Bellad.....		
Extr. Nucis Vom.....		
Resin. Podophylli.....	aa gr. 3	
Olei Caryophylli.....	gtt. 5	

Mix. Divide into 12 pills. Dose: One pill mornings and evenings.

156. *Pilulæ Metallorum* (O. D. P.)

R Quiniæ Sulphat.....	3 i	
Ferri Redacti.....	3 1½	
Acidi Arseniosi.....		
Strychniæ.....	aa gr. 3	
Confect. Rosæ.....		q. s.

Mix. Divide into 60 pills.—Dr. Winslow.

157. *Pilulæ Opii et Camphoræ.*

R Camphoræ.....	gr. 20	
Pulv. Opii.....	" 10	

Mix. Divide into 10 pills.

158. *Pilulæ Opii et Tannini.*

R Acidi Tannici.....	gr. 20	
Pulv. Opii.....	" 10	

Mix. Divide into 10 pills.

159. *Pilulæ Podophylli Co.*

R Res. Podophylli.....	gr. 24	
Gambogiæ.....	1	
Pulv. Aloes.....	1½	
Hydrarg. Chlor. Mit.....	3 2	
Pulv. Zingiber.....		
Pulv. Capsici.....	aa 3 2	
Ext. Taraxaci.....		q. s.

Mix. Divide into 240 pills.—Dr. Janeway.

160. *Pilulæ Plumbi et Opii.*

R Plumbi Acetat.....	gr. 20	
Pulv. Opii.....	" 10	

Mix. Divide into 10 pills.

161. *Pilulæ "Quattuor."*

(PILULÆ FERRI ET QUIN. CO.)

R Ferri Sulphat.....		
Quiniæ Sulphat.....		
Pulv. Aloes.....	aa gr. 20	
Ext. Nucis Vom.....	gr. 5	
Ext. Gentian.....		q. s.

Mix. Divide into 20 pills.

162. *Pilulæ Quiniæ et Ferri.*

R Quiniæ Sulphat.....	grs. 40	
Ferri Sulphat.....	" 20	
Extr. Nucis Vom.....	" 5	

Mix. Divide into 20 pills.

163. *Pilula Triplex.*

R Pilul. Hydrarg.....		
Resin. Scammonii.....		
Pulv. Aloes.....	aa grs. 20	
Olei Carui.....		q. s.

Mix. Divide into 20 pills.

164. "Rags" Pills.

R Pulv. Rhei.....	} aa grs. 20	
" Aloes.....		
" Gentianæ.....		
" Saponis.....		

Mix. Divide into 20 pills.

165. *Segur's Pills.*

R Pulv. Aloes.....	grs. 60	
Ext. Colocynth. Co.....	" 30	
" Hyoscyami.....	" 30	
" Nucis Vom.....	" 15	

Mix. Divide into 60 pills.

166. *Squibb's Laxative Pills.*

R Resinæ Podophylli.....	grs. 36	
Extr. Bellad. alcoh.....	" 18	
[or, Extr. Hyoscyam. alc.....	" 144]	
Pulv. Capsici.....	" 144	
" Sacch. Lactis.....	" 144	
" Acaciæ.....	" 36	
Glycerinæ.....	m 40	
Syrupi.....	q. s.	

Mix. Divide into 144 pills. Dry them by exposure to the ordinary temperature, until just hard enough to retain their form. Then put them into a well-stoppered bottle.

167. "Vegetable Cathartic Pills."

R Extr. Colocynth. Co.....	gr. 36	
Resin. Podophylli.....	" 9	
Resin. Leptandræ.....	" 3	
Pulv. Jalapæ.....	" 6	
Pulv. Aloes Soc.....	" 12	
Extr. Hyoscyam.....	" 6	
Olei Menthæ Pip.....	gtt. 5	

Mix. Divide into 24 pills.

168. *Walker's Pills.*

R Ext. Nucis Vom.....		
Ext. Belladonn.....	aa gr. 5	
Ferri Sulph. Exsicc.....		
Ext. Aloes.....	aa gr. 10	

Mix. Divide into 20 pills.

[illegible]CLINICAL PICTURE ON BLOODLESS
TRACHEOTOMY, EPITHELIOMA OF THE
LUNG, AND SPINA BILIDA

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Prof. Surgery Medical College of Ohio, Surgeon to the Hospital.

— 2 —

GENTLEMEN:—On Thursday last (May 15th), this little fellow, Thomas Reardon, who is five years old, was playing with some grains of corn, putting some in his mouth. About 7 a. m. the mother's attention was called to him by his having a violent fit of coughing, in which he nearly strangled, becoming quite black in the face. After recovering somewhat he replied to questioning that he had some corn in his mouth, and suddenly one of the kernels "went the wrong way." From this time up to the present he has had considerable cough, coming on chiefly in paroxysms, between which he is very comfortable. He was taken to several medical gentlemen here, who pronounced operative interference unwarrantable. I saw him this morning for the first time, four days and three hours after the accident. On putting my ear to his chest I discover signs of slight general bronchitis, and spasmodic, irregular inspiration and expiration in the larger bronchial tubes. There is no rattling as if some foreign body were present. The vesicular murmur can be heard distinctly over both lungs. Supposing a foreign body to have entered the larynx, it may remain there, pass into the trachea, into one of the primary, or more rarely into one of the secondary bronchial tubes. Round, smooth, small bodies are more liable to pass on to the bronchi, than rough or uneven ones, the latter very frequently sticking in the larynx or remaining in the trachea. Now, gentlemen, supposing a foreign body to have passed through the larynx and trachea, in which bronchus is it most apt to lodge; the right or the left? Those of you who remember your anatomy will correctly answer,—the right bronchus. Why? From the fact, first pointed out by Mr. Goodall of Dublin, that the septum at the lower end of the trachea, where it divides into the bronchi, is situated to the left of the median line. Any body descending by its own weight would thus naturally pass into the right bronchus, which is also larger than the left. There are some exceptions to the rule, regarding the arrangement of this membrane or septum.

"In forty-two cases subjected to operation or general treatment, the extraneous substance was situated twice positively, and eleven times probably, in the right bronchial tube; four times certainly, and four times probably, in the left bronchial tube; seven times in the larynx, and fourteen times in the trachea."

What are the symptoms of a foreign body in the air passages? If lodged in the larynx there will be paroxysms of coughing, preceded and followed by great pain at that point, alteration or loss of voice, and sometimes a crowing sound on inspiration. When in the trachea or bronchi, there are usually paroxysms of cough, pain in the throat or chest, sometimes a rattling sound during either inspiration, or expiration, or both. If the foreign body is of a vegetable nature, it is apt to absorb moisture, swell, and plug the tube. In such case there may be collapse of the lung, the substance rising at each expiration and letting out the air, but closing like a valve at inspiration and allowing no air to pass. This may be produced by bodies, not vegetable, that happen to fit the tube accurately. In such cases the vesicular murmur will be entirely absent over the lung to which the bronchus leads.

What is it best to do in these cases? I make it a rule to operate as soon as I am satisfied that the body is there. Patients often recover without any operative interference, and for this reason many surgeons prefer to wait upon Nature. Death, however, may occur almost instantly from the forcing of the foreign body into the larynx, and from other causes. Durham of London has tabulated 554 cases of foreign bodies in the air passages. Of these 271 were not operated on; 56 recovered, 115 died. Mortality 42.5 per cent.

In 283 of these, bronchotomy was performed, 70 died; 213 recovered. Mortality 24.8 per cent. Difference in favor of cases operated on 17 per cent. Dr. I. R. Weist of Richmond Indiana, has tabulated and analyzed 163 cases, 82 of which were operated upon and 81 left to Nature.

He says, "as determined by Prof. Gross's tables the chances for recovery are more than twice as great after bronchotomy, as they are without this operation; while the cases here presented show only a difference of 1 ½ per cent. in favor of the operation. And I feel sure from observations made during the collection of material for this paper, that were it possible to collect from medical men generally *all* the facts known to them in relation to this subject, the difference in favor of the operation would be reduced still more." Where the foreign body is in the larynx primarily it may often be reached and removed with a pair of long throat forceps. The laryngoscope is of great service in some cases; in others the patients, who are usually young and do not see the importance of quiet, struggle so as to render it useless. Sudden death being liable to occur at any moment, (though patients have lived for twelve months without any

difficulty of breathing or urgent symptoms), I deem it best to operate at once. I may say in this connection that I have performed tracheotomy a great many times, have never lost a patient where I operated for foreign bodies, and have never saved one where I operated for the difficulties attending croup or diphtheria.

Following the guidance of your text-books, gentlemen, you will regard this as one of the simplest and most satisfactory operations in surgery. You are told to make an incision through the skin, and then all that lies between you and the trachea is the cellular tissue and a few unimportant veins, through which you may cut with impunity; open the trachea and insert the tube or commence your search for the foreign body. This is a great mistake. There is no operation which the surgeon so much dreads. At least this has been my experience. You imagine the case is simple, the neck long, the patient lean, and expect to find easy access to a superficial trachea. After dividing the integument you cut into the cellular tissue, and to your surprise and horror you find the trachea low down and covered by a mass of veins, rendered thick, turgid, almost varicose, by the impeded respiration. You cut, tie and tear your way along, and when you hope to open into the trachea, find yourself at the bottom of a deep, bloody well, with a constantly-moving tube to open. It is for this reason that I have given up all cutting from the time of dividing the integument until the trachea is reached. Then, too, I operate high up. If the isthmus of the thyroid is in my way, I push it aside if possible, and if I cannot do this, I double ligate and divide it. My incision is made into the first two rings of the trachea, thus avoiding all danger to the great vessels at the root of the neck.

I shall now proceed to operate on this little fellow. I give him only enough ether to blunt sensation. I find it best to do so in most of these cases. My first step, you see, is to pinch up a transverse fold of the skin, and, passing my bistoury through it in the median line, cut directly out, thus making my skin incision, which, as you see, is pretty free. I now lay aside my knife, not using one again, until I come to the trachea. With a fairly sharp steel director I now proceed to tear up the tissues in the median line. I have just exposed the anterior jugular vein of the right side. It is large and tortuous. Under this Dr. Kearns passes a double ligature, and ties it in two places. The trachea is situated very deep in the neck for a child so thin and long-necked as this one. Separating the muscles on the front of the trachea, I now see that tube, and, bending in across it a vein almost as large as the trachea itself. Having sponged away what little blood there is, I draw the large vein to one side and with this *curved, double-edged, sharp-pointed bistoury*, I catch up the trachea and open it, cutting from below upwards. The knife I use is similar to Gross's abscess knife. The grain of corn is right before us in the wound, but eludes all our efforts to grasp and remove it. As the child just coughed the kernel was forcibly expelled. Here I show it to you. It is unusually large, rather sharp-pointed, and not at all softened, though in its warm, moist bed for over four days. If I had some catgut liga-

ture I would sew up the edges of the tracheal wound. Having none, I content myself with putting three sutures through the skin, covering this with a pad of cotton and applying a roller bandage.

[I here show you a shawl-pin and a puff-dart from a little air-gun, that I recently removed from the air passages in a similar way.]



I wish to call your attention to two points before closing. For the past eight years I have used the knife only to cut through the skin and open the trachea. I separate and tear the other tissues with a blunt instrument, thus avoiding all hemorrhages, the operation being really a bloodless one. In opening the trachea, I cut from below upward. In making your incision always be sure that you do not extend your cut too low, as the arteria innominata is relatively high up in children. One case is recorded where the arteria innominata crossed the trachea at the point where it should be opened, and it was decided to abandon the operation on this account. *Be sure to keep in the median line.* You noticed that when I opened the trachea I did it with a curved and double-edged bistoury. I never use the common bistoury for this purpose now. It is very hard to enter a trachea with it, a tenaculum, is necessary to hold the tube, and the force required to pierce the organ, if not very carefully guarded, is apt to cause transfixion of the trachea. The sharp-pointed, double-edged bistoury acts as a tenaculum holding the tube and readily cutting through its rings. Finally, let your incision into the trachea be free, for unless it be so, the chances of the patient's forcing out the foreign body when he coughs are not so good. Here I was obliged to make my incision a little smaller than usual, on account of the large vein that curved around it, and the grain of corn did not fly out so readily as it would otherwise have done. Time prevents my saying any more to you on this very interesting subject to-day.

CASE 2.—Gentlemen; the patient whom I now show you is about fifty years of age, strong and robust. I bring him before you, not because there is anything unusual in his case, but simply that he may serve as a text for a few remarks that I wish to make, on cancer of the lip. I operated upon him some ten days ago, removing the whole disease by making a V-shaped incision having the free margin of the lip as its base. Although I made a free incision and removed a large piece ($1\frac{1}{4}$ inches in breadth at its base), cutting clear of all morbid tissue into sound flesh, you see that union is perfect and the mouth but little smaller. When you come to do this operation for the first time you will probably hesitate and

possibly neglect to remove as large a piece of tissue as you will allow and wish you had. You need never hesitate, on this ground, in the ordinary case of epithelioma of the lip, for after the parts have been brought together and union has taken place you will be surprised at the little deformity resulting. You should cut free of all diseased tissue into sound flesh in order that the disease may not return. Such a method of operating has always been the rule with me, and to it I ascribe the fact that I have never had the disease return after operation. I carry out this practice in carcinoma of the female breast, a disease which you know is by no means uncommon, and one that is so likely to return after operating in the ordinary way. Instead of simply removing that part of the gland which I consider to be diseased, I remove the whole breast and let the wound heal by granulation. That part of the breast left after the usual operation is of no use, and indeed, the cicatrix resulting from the union obtained, is the point where the disease is most apt to show itself again. The cancerous mass is oftentimes well defined, in some cases encapsuled, but more often the deadly material is spread amongst the healthy tissues in such a manner that it is impossible for the surgeon to determine whether the part he leaves is normal or abnormal. Glandular structure that may be normal to the touch and sight, may, under the microscope, prove to be infiltrated with carcinomatous material. With this method of procedure, amputation of the whole breast, leaving no flap and, consequently, no cicatrix, I feel confident that I obtain better results than do those who only remove that part of the gland that, to the sight and touch, seems to be diseased. But to return to the lip. There is one form of disease that we may very readily confound with epithelioma. This is lupus; the *noli me tangere* of the old authors. How can we distinguish the one disease from the other? I know of but one diagnostic feature upon which any confidence can be placed. In lupus we have an ulcer that looks and acts almost exactly as does epithelioma, but it lacks one thing; the *hard, indurated, shotty feel* of the edges of the cancerous ulcer. The edges of lupus ulcer are soft, flabby and sometimes oedematous; those of epithelioma are hard and tough. Don't forget this.

I want to say a few words here regarding the etiology of cancer. There are many who believe, and justly too, I think, that all cancer is referable to some injury, chemical or mechanical, usually the latter; a blow, a traumatism. Whether this be true or not the fact remains that almost every case of carcinoma that we see is referred to some injury. True it is, that, from the nature of our surroundings, we are constantly receiving injuries more or less serious, and it is very natural, when disease appears at a certain point to ascribe it to some injury of the part. There is, however, an undoubted connection between the two. Epithelioma of the lip is most often seen in the Irish who are so constantly holding the stem of a foul clay pipe between the lips. You will remember that in my lecture upon the nature and etiology of cancer, in the regular term, I spoke to you, somewhat fully, upon the difference of opinion or belief amongst some of our leading pathologists as to the nature of this disease. Paget

and his followers maintain that cancer is a constitutional affection, and that the lesion, wherever situated, is simply a local manifestation of the general disease. In the minds of these gentlemen a traumatism is only the exciting cause that, in some cases, determines the point at which the lesion is to appear. Billroth, on the other hand, with an equally large following, maintains that the disease is purely a local one, and that the rest of the system is implicated only by an absorption of the peculiar cell or virus produced at the point of lesion. The question is still *sub judice* and will so remain until some further light is thrown upon the pathology of this formidable affection. Remember one thing, in operating for epithelioma of the lip, *sacrifice a sufficient quantity of healthy structure to make certain you have removed all of the diseased tissue.*

II. SPINA BIFIDA, literally, cloven spine. It is a congenital hernia of the membranes of the spine through a hole or fissure in the posterior wall of that canal. It is a very common malformation, being seen more often than any other except hare-lip. The child whom I present to you to-day with this patent condition of the vertebral canal is a little boy, four months old. The tumor, you see, is in the lumbar region, and of fair size, containing probably four ounces of fluid. The skin over it is thinned and has a purplish, cicatricial appearance. The sac being in all cases, simply a dilatation and protrusion of the cord membranes, its contents are of course the contents of the cord membranes and of the cerebral arachnoid, the two being continuous. Herein lies one of the great dangers in operating for the relief or cure of this condition; for in emptying the spinal diverticulum you are very apt to withdraw the cerebral arachnoid fluid, and lead to convulsions, inflammation and death. In some cases, where the skin covering the tumor is greatly thinned or entirely absent, ulceration may take place and the arachnoid fluid thus slowly drain away and lead to a fatal issue. Rupture or ulceration has been, however, occasionally followed by cure. In some cases the skin instead of being thinned or absent, has its normal thickness and appearance, and in still others is tough and leathery, being considerably thickened. The tumor may be pedunculated, the pedicle being long or short, or it may have a broad, sessile base. The difference is due entirely to the form and extent of the spinal fissure. In this case the base of the tumor is rather broad and the fissured condition of the vertebræ may be felt through the membranes.

These cases are almost uniformly fatal, and as a rule rapidly so. It will be apparent to you that such delicate structures when exposed to constant chafing and injury will sooner or later inflame, and paralysis and death result. Some few cases have been known to recover after operation. Mention is made in Holmes' System of Surgery of two cases of this disease, where the patients lived to be forty-three and fifty years of age respectively.

Spina Bifida is due to an arrest of development in the vertebral arches. This may arise from no known cause or may be traced directly to a dropsy of the membranes, usually inflammatory, producing a tumor that by its protrusion prevents the coming together of the parts and thus arrests the develop-

ment of the same. The point of fissure is usually through the laminae. There are some very rare cases where the bodies of the vertebrae are fissured or entirely absent. They are, however, so rare that I leave them for your special study. The sac in almost all instances contains a portion of the spinal cord. Its usual position is in the median line, on the internal and posterior aspect of the tumor. In aspirating these tumors, as I now propose to do here, you should make your puncture at the side in order to escape wounding the cord or its prolongations when present. Having carefully inserted the needle I now slowly withdraw the fluid contents of the tumor. This is very commonly accompanied or followed by convulsions. I think that in this case the cord is not present in the tumor. Dr. Moutmullur of Kentucky, whose patient this is, tells me that he has tapped the tumor twice before and that there were no convulsions. He says that he has tried various pads, and metal plates, tightly strapped over the tumor after emptying it, but that the fluid has accumulated each time in spite of his efforts to the contrary. Having emptied the tumor, I now proceed to apply a Sayre's plaster jacket, hoping thus to maintain and equable pressure, and possibly prevent a reaccumulation of the fluid. Sir Astley Cooper obtained some very good results by tapping and then carefully applying graduated pressure over the site of the tumor.

There have been many plans of treatment other than this. That by the injection of iodine and the iodide of potassium and iodine and water have received the highest laudation. Brainard of Chicago and Velpeau of France claim to cure 50% of their patients in this way. Brainard is said by M. Debout to have operated upon six cases by injection, with the perfect cure of five. Brainard himself (*Amer. Jour. Med. Sc.* vol. XLII, p. 65, 1861) however, claims to have cured but three out of seven cases. His method is as follows. He withdraws from the tumor six ounces of its fluid contents and then injects half an ounce of a solution containing five (5) grains of iodine and fifteen (15) grains of iodide of potassium to the ounce of water. Allowing this to remain for a few moments he draws it off, washes out the sac with water and injects two ounces (2 oz), of the cerebro-spinal fluid, kept at the temperature of the body. Great as has been the success of this method of procedure in Velpeau's and Brainard's patients, it has not proved of nearly the same value in the hands of others.

Excision and ligation of these tumors is a very dangerous procedure, death almost invariably following.

(This little patient died of exhaustion 12 days after the aspiration. The application of the plaster jacket had no effect in checking the accumulation of the fluid.)

CHRONIC ARTICULAR RHEUMATISM AND RHEUMATOID ARTHRITIS.

A Lecture delivered before the Medical Class of the University of Pennsylvania.

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—Lecturer on the Hospital Gazette.

Chronic articular rheumatism may follow the acute form of the disease if it is not treated promptly and

effectually, or it may occur as a distinct disease occurring in damp weather and characterized by stiffness and pain in the joints.

If the disease appears originally in its chronic form the joints do not usually undergo any change, but if the chronic stage follows an acute attack the joints are quite stiff. The pain in these cases often extends to the muscles, fasciæ, and long bones, and in syphilitic rheumatism the bones of the sternum and cranium are affected and covered with nodules. In this condition the moral conduct of the patient is, of course, not involved as in hereditary and acquired syphilis.

To go somewhat more into details the symptoms may be divided into the habitual symptoms and those which arise during the exacerbations. (The chronic form of rheumatism is sometimes called "cold" rheumatism.) In these cases the sensibility to cold and dampness is rendered morbidly acute. When exacerbations occur the disease assumes a subacute type and all the joints become red, swollen, and warm. The pain is aggravated by heat. These exacerbations are of indefinite duration.

If the joints have not become positively deformed you may be moderately sure of a cure, at least, a cure may be hoped for. If a cure is not established the functions of the joints will never be re-established. These deformities of the joints are, in reality, lesions of the soft parts.

The treatment of the febrile, or sub-acute form of chronic articular rheumatism demands the same internal remedies as in the acute form—the local application of heat, the use of the alkalies, moisture, local stimulants, narcotics, and sudorifics. In the chronic form local stimulus and alteratives are especially indicated. Among the best of the local stimulants may be mentioned camphor, turpentine, ammonia, and chloroform and the more active stimulants, or counter-irritants—iodine, cantharides, mustard, croton oil, moxas, and blisters.

In the treatment of chronic rheumatism of the more superficial joints blisters are the best application; for the deeper joints, such as the hip, I prefer moxas.

In the case of the elbow, knee, and ankle joints a very excellent form of local alterative is sulphur in fine powder laid between the folds of linen and applied to the joints. Other remedies of value for the protection of the part from the air, and the maintenance at the same time of a gentle stimulating action, are the burgundy pitch plaster and the ammoniacal plaster with mercury. Croton oil and tartar emetic are but very rarely used. Where the shoulder is the joint affected a series of local blisters should be employed.

In all cases of rheumatism of the joints passive motions should be practised to prevent permanent stiffness of the parts and the induced current of electricity should be frequently passed through the affected parts.

In passing I must not forget to dwell upon the great efficacy of local hot baths. This I consider a most important therapeutical agent in chronic articular rheumatism. These baths may consist of hot, or warm, water, air, or steam; and in this connection some of the saline, alkaline, or sulphuretted mineral waters may be employed. Sulphuretted

waters are very widely used in this country and in Europe in the treatment of this affection. It is this virtue which has given a reputation to most of the familiar springs on the continent of Europe.

Another curative agent of great usefulness in hot water baths is the diaphoresia set up and this should be supplemented by horseback riding and by walking. If the reaction which follows it is vigorous, sea-bathing is sometimes excellent. So too with regard to the cold, heat and sweating produced by the hydropathic packing.

The principal medicinal agents employed with good effect in chronic articular rheumatism are guaiacum, oil of turpentine, iodide of potassium, cod-liver oil, alkalies, and sulphur. It was in the treatment of this disease that cod-liver oil first gained its repute as a remedial agent. Guaiacum has been extravagantly lauded by some. The usual forms in which guaiacum is best administered are the tincture and the ammoniated tincture in doses of f 3 i-ij, three times a day, or the *mistura guiaci composita* may be given in doses varying from f 5 ss.-i, every four hours. The ammoniacal tincture is employed where additional stimulus is needed and the compound mixture where no stimulation is wanted.

There is a prescription used in England which has a great reputation in this disease and which I really think does great good, viz: The so-called "Chelsea Pensioner" from the fact of its first being used among the rheumatic old pensioners in the Chelsea Home.

Its ingredients are the following:

- | | | |
|---|----------------------------|--------------|
| R | Of the flowers of sulphur, | two ounces. |
| " | cream of tartar, | one ounce. |
| " | powdered rhubarb, | two drachms. |
| " | Guaiacum (resin), | one drachm. |
| " | Clarified honey, | one pound. |
| " | powdered nutmeg, | two drachms. |

M. S. Take two large teaspoonfuls at night and morning for three days, in honey or mulled wine.

Of other medicines the oil of turpentine may be given in doses varying from f 3 ss.—f 3 j. thrice daily. Mention may also be made of the balsam of copaiba and the oil of cajuput. The latter in particular is said to be of great service by some.

Where the fibrous investments of the joints are swollen the iodide of potassium is a very valuable remedy. In those cases which are of syphilitic taint in addition to the iodide of potassium, mercury is very valuable, but it should only be pushed to a slight extent. The best form of mercury is the bichloride, and it is best administered in the compound syrup of sarsaparilla. This mixture is most efficacious. All general systemic disorders should at the same time be sedulously treated with iron, quinia and other general tonics. If there is any biliousness purges should be judiciously administered.

In conclusion I may say that if all of the forms of treatment which I have mentioned prove of no avail and if the patient can afford it, he or she should at once be sent to some tropical climate to spend their winters.

RHEUMATOID ARTHRITIS.

This condition is very apt to be confounded with chronic articular rheumatism, although in reality,

the analogy between the two diseases is but slight. Change of structure in the joints themselves is the essential symptom of rheumatoid arthritis, whereas in chronic articular rheumatism the structural changes do not take place in the joints, but in the ligaments which surround the joints. Rheumatoid arthritis is sometimes called rheumatic gout, but it bears hardly a single resemblance to gout. Unlike both articular rheumatism and gout it begins very slowly, invading one, or more of the joints, a long time elapsing before all of the joints of the body are involved.

Rheumatoid arthritis may begin at any age, but is especially frequent in childhood and attacks women more frequently than men. I have seen an unusual number of cases of this disease and they have all occurred in women. The disease is not confined to any particular class of society. It begins in childhood, perhaps, and runs on unchecked until the extreme limit of old age. In some cases, indeed, although its presence becomes a perpetual source of agony, it yet seems to be conservative of life; patients with rheumatoid arthritis often living to a greater age than those upon whom the disease has not laid its enduring grasp.

In the first stage of the affection one or more of the joints are swollen. In time the affected joints become enlarged and deformed by a *bony swelling external to the joint itself*. Passive motion of the affected joint is attended with pain and a crackling sensation. If the disease continues the joints may in time become disarticulated. After death the joint is found to be the seat of the synovial effusion with vascular injection early in the progress of the disease, while later the fluid is absorbed and the cartilages ulcerate and are sometimes even altogether removed, the denuded ends of the bones undergoing conversion into an ivory-like substance, which is hard and brittle. As the ligaments of the joints undergo atrophy or relaxation, the opposite faces of the bones are subluxated, or soldered together.

Rheumatoid arthritis may be distinguished from acute articular rheumatism by the following points. In the acute stage of rheumatoid arthritis there are none of the febrile symptoms of acute rheumatism, nor do the joints become red, nor is the urine acid, nor do heart complications exist later on in the disease. Rheumatoid arthritis is localized in the joints themselves and chronic articular rheumatism in the ligaments and tendons.

Rheumatoid arthritis may be distinguished from gout by the absence of dusky veins and œdematous swelling. Also by the absence of the gouty urine and of the chronic valvular disease of the heart. In gout the deformity of the joint is caused by the fact that the joint is enveloped in a mass of the urate of sodium, constituting what is known as "gout stones."

The prognosis in rheumatoid arthritis is that the disease is never fatal, but that it causes a great deal of suffering, that the limbs are twisted into almost impossible positions. In one case which I saw, rotation of the head and deflection of one finger were all the movements that could be made. In that case the disease followed membranous colitis produced by sleeping between damp sheets at the sea shore.

The treatment of the disease consists in rest and all the possible hygienic comforts; good food, fresh air, plenty of sunshine, and ample clothing. Among drugs, the best are, cod-liver oil with arsenic. The arsenic is best administered in the form of the arseniate of potassium in the large doses of from ten to fifteen minims three times a day. The cod-liver oil must be continued as long as the stomach can bear it, suspending it from time to time as the stomach begins to rebel.

If given early these remedies are said by some to have arrested the disease, but I must confess, for my part, that I have never seen the slightest benefit follow their employment. The pain in the joints should, of course, be eased, if possible, by anodyne applications. In some cases good seems to follow the painting of the affected parts with a very strong tincture of iodine.

ORIGINAL ARTICLES.

THE BROOKLYN TREATMENT OF DIPHTHERIA.

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"ALCOHOL IS AN ANTAGONISTIC TO DIPHTHERIA AS BELLADONNA TO OPIUM, OR QUININE TO MALARIA."—E. N. CHAPMAN, M. D.

The list of remedial agents employed in the treatment of diphtheria is an exceptionally long one. Apomorphia, sulphate of copper, muriated tinct. of iron, guaiacum, mild chloride of mercury, biniodide of mercury, black oxyd of mercury in the form of vapors, ipecacuanha, chlorate of potash, iodide of potassium, sulphate of quinine, salicylate of soda, salicylic acid, carbolic acid, sulpho-carbolate of sodium, flowers of sulphur, are only a part of the remedies which have been, or are to-day, employed in the constitutional treatment of the disease. Just as long a list of drugs could be made up by naming those which are recommended for topical application. If we find numerous remedies in use against any disease, that fact may be considered as evidence, that the therapie in such a case is not well settled. Several of the remedies mentioned have been, at one time or another, praised highly by enthusiastic writers as "specifics." Yet the mortality of diphtheria is indeed enormous; Albu (*Journal für Kinder-Krankheiten* LIII, p. 164) states it to be 47%; according to other writers it varies between 20% and 50%.

To speak briefly of the merits of "alcohol" in the treatment of diphtheria and to report my experience in thirty cases treated by alcohol, is the object of this paper.

The treatment of uræmic convulsions and especially that of puerperal eclampsia by large doses of veratrum viride has gained considerable reputation as the "*Brooklyn treatment*." The same name should be applied to the alcoholic treatment of diphtheria, because its first advocate was a physician of this city. As early as 1863, says Dr. E. N. Chapman in the *Boston Medical and Surgical Journal*, published his opinion on this subject. He has defended his assertions since that time on several occasions and

has lately published a valuable little work on the subject.

The reappearance of diphtheria during the past winter in an epidemic form and its undiminished mortality under the so-called "recognized" forms of treatment, should draw the attention of the profession to the existing antagonism of alcohol and diphtheria.

Dr. Chapman in his first article in the *Boston Medical and Surgical Journal* reported nineteen recoveries in twenty consecutive cases; he gave further evidence of the value of the alcoholic treatment of diphtheria at a meeting of the Kings County Medical Society early in 1874, and in October, 1877, he read a paper before the same society stating that during the period of more than three years he had treated eighty-five cases of diphtheria by large doses of alcohol with the most gratifying results. Of the eighty-five cases reported, eighty-four made a splendid recovery and one died. In the little work "*The Antagonism of Diphtheria and Alcohol*," the doctor publishes his observations up to the 15th of May, 1878, and he reports forty more cases, with thirty-nine recoveries and one death. One hundred and twenty-five cases of diphtheria have been treated with alcohol—and of those but two died. It compared with the usual mortality of the disease, the statistics given are so remarkable as almost to stagger belief, more especially as the doctor has not even lost a case of croup during the period of his observation.

A natural feeling of doubt may come over almost everybody, about the correctness of the diagnosis; but Dr. Chapman's ability and his excellent reputation should be sufficient evidence that the reported cases were "genuine" and not "homœopathic" cases of diphtheria.

Of late several practitioners of this city have employed the alcoholic treatment, and it has yielded results emphatically confirmatory of Dr. Chapman's. Having tried the "*Brooklyn treatment*" in thirty cases, I can only confirm what Dr. Chapman says about its great efficiency and value.

Shortly after the doctor read his paper before the Kings County Med. Society in 1877, I treated for the first time a case of diphtheria with large doses of alcohol. The patient made a good recovery. I have since treated thirty cases of diphtheria by this method, many of them of the most severe variety, and a number of them complicated by scarlet fever, and I only lost four. Twenty-six recoveries and four deaths is an excellent success; if added to the cases reported by Dr. Chapman, our statistics will show an aggregate of one hundred and fifty-five cases treated with large doses of alcohol. Of these one hundred and forty-nine recovered and six died—a mortality of about 4%. If clinical experience can settle therapeutical questions, the alcoholic treatment of diphtheria must be recognized as one of the most powerful means to diminish the mortality of the disease. Whatever the true pathology of diphtheria may be; whether the local affection is only a symptom of a specific condition of blood-poisoning, or whether the disease should be regarded as a contagious infectious one which commences as a local difficulty, and which may either continue and remain such, or may lead second-

arise to a constitutional affection, a large clinical experience shows that there is no form of treatment more effectual than the administration of large doses of alcohol. In cases of diphtheritic poisoning alcohol does not act as a stimulant, it induces none of its ordinary effects; intoxication has never been observed, while enormous doses have been administered to young children. The remedy should not be employed, as in a variety of other diseases, to relieve or prevent great prostration, but simply for its specification as an antidote to the diphtheritic poison. Not only as an antidote, but also as a preventative of diphtheria has alcohol proven to be of great value; if administered early and in sufficient doses its prophylactic properties can easily be demonstrated. And even to prevent or cut short any of the sequelæ of diphtheria there is no remedy as reliable as alcohol.

In most of Dr. Chapman's cases quinine had been administered in addition to the alcohol; in twelve cases of mine, all of which recovered, alcohol alone was employed. The effect seemed to be almost as decided and quick without, as with, quinine. The children often refused the medicine on account of the taste of quinine; lately I have always used quinine by inunction and given the alcohol separately. I have in cases of diphtheria, but oftener in cases of acute catarrhal pneumonia, produced cinchonism by the frequent use of an ointment made of

Quinæ sulph.,	3 ss.
Chloroform,	3 ss.
Ess. Pepp.,	3 ss.
Adipos.	3 vi.
M.	

For the administration of the alcohol the following formula has generally been employed:

Spts. Vini Gallic,	3 ijss
or Spts. Frumenti,	
Glycerini opt.,	
Syr. Simplic. aa.	3 ss.
Aquæ Menth. Pip.,	q-s. ad. 3 iv.
M.	

To children under two years 3i every hour, from two to three years 3iss, from three to five years 3ij, from five to eight years from 3iiss, to 3ss, every hour.

In a few very severe cases champagne has been used. Great importance has always been attached to hygiene; cleanliness and fresh air have always been obtained first of all. Of course, whenever a direct cause for the development and propagation of the diphtheritic poison could be found great care has been taken to remove it. It was hardly ever left to the inspector from the Board of Health to examine the plumbing; the escape of sewer gas could be detected in about one-half of the cases reported.

Whether any good effect can be obtained from topical treatment will not be discussed. I have always employed a light astringent application, either in the form of a gargle or spray, or as a powder, to be blown on the diseased parts. Chlorate of potash, powdered alum, and tannic acid, either combined or otherwise, with the addition of a comparatively large quantity of carbolic acid have been used. Of late Wyett's tablets of chlorate of potash have been found to be a very convenient form for the

administration of the salt. During the first twenty-four hours of an attack, little or no nourishment has generally been taken, but in all instances the first food given, consisted of milk and limewater with the addition of a few grains of salt. The experience gained in thirty cases strongly impresses the facts that, at least in cases of diphtheria, there is no kind of food which is so well borne by the stomach of the sick, as limewater and milk. No one can deny that this form of food introduces all the necessary elements of nutrition in the most exact proportions, as needed by the several tissues of the body. Iron, and especially the "Dialysed Iron" has been employed during convalescence and it has, in combination with some form of alcohol, either prevented or relieved the conditions of anæmia and loss of nerve power which are so apt to follow diphtheria.

A few cases may be cited:

Walter B., æt. 7, a rather delicate boy of healthy parents, attended school as usual during the forenoon of April 4th, '78. He had a very severe chill at about 11 A. M. and went to bed after coming home at noon. I saw the boy at 4 P. M. Temp. 105½. Pulse 134. Skin dry. Fauces coated with diphtheritic membrane. Great prostration. Ordered brandy in teaspoonful doses every hour; cold application to the head and a carbolated chlorate of potash gargle. At 11 P. M. Patient delirious. Temp. 106¼. Pulse 140. Cold compresses continued and brandy increased to 3iss every hour.

April 5th.—Patient had a very restless night, but at 10 A. M. he feels quite comfortable, with a temp. of 101½. Pulse 108. Diphtheritic exudation extending. 6 P. M. Difficulty in breathing marked. The child struggled for breath as in membranous croup; the administration of two doses of 3 grs. turpeth mineral each had the desired effect and caused free emesis. Treatment continued.

10 P. M.—Patient feels easier. Dyspnœa diminished. Temp. 102½. Treatment continued.

April 6th, 10 A. M.—Patient slept some. Temp. 101½. A copious purulent secretion followed by disintegration of the membrane took place. The pulse is yet very feeble, the boy very much prostrated. Under the "Alcoholic treatment" the boy improved slowly and was discharged, free from any sequelæ on April 22, '78.

Louise H., æt. 8, was taken sick with diphtheria in January, '78. The origin of this case could be traced to the presence of sewer-gas. Two other children and the parents escaped the disease by the exclusive use of alcohol and cinchonia, administered in the following way:

R Cinchon. sulph.,	3 i.
Acid Sulph. Arom.,	q-s.
Spts. Vini Gallic,	3 viij.
Glycerini Opt.,	3 i.

M. From a small teaspoonful to a tablespoonful given every two hours, according to the age.

In this case the false membrane covered from the outset almost the entire pharynx. It soon extended both into the nostrils and downward; the larynx became implicated to such an extent that I asked my friend Dr. Pilcher to be ready, at a moment's notice to perform tracheotomy. Two teaspoonful doses of brandy, given every hour, day and night, did not seem to influence the circulation at all, it produced

none of the common effects of alcohol, but it carried the little patient safely through a very severe attack of diphtheria. The fetid discharge from the nose continued for about twelve days. No sequelæ.

Robert M., æt. 6.—A younger brother had died of diphtheria end of November. Saw the boy for the first time December 8th and found him suffering from a severe attack of the disease. Temp. 103½. Severe headache; great prostration. The boy made a splendid recovery under the alcoholic treatment and was discharged on Dec. 15th.

Five cases of scarlet fever and diphtheria in the same house.—About the middle of December I was called to see a little boy, John Rossee, 7 years of age, who had been ill for several days. The little patient presented a perfect picture of blood poisoning. Temp. 105. Pulse 140. Skin dry, having a dusky sodden look. The boy was exceedingly restless, throwing himself from one side of the bed to the other. The stomach had rejected everything during the last 24 hours. There was no diphtheritic membrane to be detected, but the fauces presented a diffusive deep colored redness bordering on bluishness. This condition together with the grave constitutional symptoms led me to diagnose "commencing diphtheria". The following morning, after a very restless and delirious night, the fauces, the tonsils and parts of the roof of the mouth were covered with diphtheritic exudation. The cutaneous eruption of scarlatina also made its appearance. The patient was put on alcohol and quinine treatment; the following formula being used:

℞ Quin. Sulph.,	gr. xvj.
Acid Sulph. Arom.,	q.s.
Spir. Vini Gallic,	℥ iss.
Syr. Simplic	ad ℥ ij.

M. S. Teaspoonful every two hours.

During the next few days the boy was in an exceedingly low condition and on the second morning it was thought best to give him, besides the mixture just referred to, two drachms of whiskey every two hours. The great prostration and the high fever were the characteristics of this case. The local affection, although quite extensive in the beginning, was soon subdued.

Five days after the boy was taken sick, just at the time he commenced to improve, Clara, a girl of 12, began to complain of headache, nausea, restlessness, etc. The next morning she developed scarlatina without any sign of diphtheria. The treatment was the same as in the boy's case.

Three days later, the boy still improving, Emma, a bright little girl of 5, was taken sick. The disease was ushered in by several severe attacks of convulsions, each one lasting from 25 to 40 minutes. The signs of scarlatina appeared the following morning, and diphtheria in its most malignant form (Laryngeal diphtheria) became developed soon afterwards. The child refused all food; medicine had to be forced on her. At that time the prescription had been taken to another pharmacist, who prepared the mixture according to the copy furnished by the first druggist, which read,—

Quin. sulph. gr. xvi., acid sulph. arom. q.s., spir. vin. gall. ℥ iss., syr. Simplic. add. ℥ ii. S. 3 i. every 2 hours. The carelessness of the druggist deprived

the little patient of the necessary amount of alcohol. She died on the third day of her sickness.

The day after the funeral the father of the children complained of severe headache, nausea, pain in lower limbs, etc. On the left tonsil a small patch of diphtheritic exudation could be seen. He was at once placed on two drachm doses of the original prescription and ½ ounce of whiskey every 2 hours. The diphtheritic patch became loosened, and he seemed to improve nicely, when a few days after the first attack he was taken sick again and developed scarlet fever. The same treatment was continued, and patient made a good recovery.

A baby of four months had a slight attack of scarlet fever after all the others got well. She took 20 drops of the mixture every two hours, and soon recovered.

It would be interesting to report a larger number of cases, but space will not permit me to do so. If others give "the Brooklyn treatment" a fair trial, it would be desirable to have their experience published.

HOSPITAL RECORDS.

THE ORTHOPÆDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES PHILADELPHIA.

SEYMOUR S. WELLS, M.D.
(Prepared for THE HOSPITAL GAZETTE.)

ACUTE SPINAL PARALYSIS.

Benjamin Cooper, æt. 29, admitted January 13, 1879. His father died at the age of 74 years. Patient himself had always been a healthy and active man. His mother was 64 years old at the time of her death, and had been suffering for three or four years before that date from softening of the brain. Patient's father's brothers' families were consumptive. No cancer, epilepsy, neuralgia or other neuroses in the family to the best of the patient's knowledge. No rheumatic or gouty tendencies.

Patient has always been strong and able to work until his present illness began. Has worked on a farm all his life, and has never suffered, although exposed to all sorts of weather.

About the 20th of October, 1878, he "began to feel a little wretched all over his body, and there was loss of appetite, disinclination to work and general good-for-nothingness." He continued to work and attend to his business, however, until November 1, when he got up in the morning "a little bit lame in the right leg." His appetite, however, was better than it had been for some time, and he felt generally clearer than usual on the morning of that day. During the day the loss of power increased; and by 7:30 P. M. he had no control whatever over the limb. Sensation in the leg remained unimpaired. Has suffered no pain in the affected limb, with the exception of sudden twinges of pain a couple of times in the knee upon quickly jerking the leg in trying to place the foot on the floor or in the effort to sit down.

About three weeks after his leg was paralyzed he partially lost control of the right hand (fingers) in trying to grasp something. On the third day after he noticed this it passed away, and he has had as good use of the fingers since then as ever before.

The left leg, some days after the right was seized, seemed weaker than normal. He was not able to stand placing the entire weight of his body on it and for about a week he did not attempt to stand on it. Then it gradually got stronger until now he can stand and walk on it pretty well. No marked paralysis of any particular muscles or set of muscles is noticeable upon admission.

The right leg was completely paralyzed at first, not a single muscle responding to the impulse of his will. In about a month he noticed that he could very slightly flex the toes. He next regained power over the flexor muscles of the thigh so that he could stand on the sound leg and swing the right (pendulum fashion). Those are all the voluntary motions he can now accomplish.

States that he has always been more or less troubled with sweating of the feet. Since he has been paralyzed, however, the perspiration has been very profuse in the whole leg, and especially so since he has been here. He suffered considerably with cold feet until coming into the hospital.

Electro-sensibility in the affected limb is good to either current, probably heightened. Electro-contraction remains fair to the chemical current, especially in the muscles below the knee. A slowly interrupted induced current provokes no response whatever in any of the muscles. A rapidly interrupted faradic current (full strength, secondary) causes slight contractions of the quadriceps and adductor muscles of the thigh.

Cutaneous sensation as shown by compasses.

Right Leg	Thigh	Inner aspect separates points at	4
"	"	Anterior " " " "	"
"	"	Outer " " " "	"
Below Knee	"	Anterior " (over line tibia)	2
"	"	Inner " separates points at	4
"	"	Outer " " " "	"
"	"	Dorsal " " " "	3
"	"	Inner " " " "	2
"	"	Sole " " " "	4
Left Leg	Thigh	Outer " " " "	3
"	"	Anterior " " " "	2
Below Knee	"	Anterior " (over tibia)	1
"	"	Inner " separates points at	3
"	"	Outer " " " "	2
"	"	Dorsal " " " "	4
"	"	Inner " " " "	1
"	"	Sole " " " "	"

Right thigh, interior aspect, ... 01
 Right foot, plantar aspect, ... 02
 Right foot, side, ... 04
 Between the toes the temperature is too low to register

Advised to come into the hospital, and ordered massage, hypodermics of strychnine sulph., gr. $\frac{1}{6}$, daily increasing, with galvanic current slowly interrupted to muscles of leg.

January 21, 1879, left the hospital.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

JOHN A. WYLLIE, M.D.

COMPARATIVE EFFICACY OF INTERMITTENT DIRECT PRESSURE AND THE ELASTIC BANDAGE IN THE TREATMENT OF ANEURISM OF THE EXTREMITIES.—ESMARCH.

Patient, goldsmith, æt. 58, previously healthy. For the last 4 years, he had been employed in roll-

ing silver plate, in which labor he was compelled to press both thighs strongly against a plank resting between his legs, upon which the plate was worked out. On these two points of pressure two swellings gradually developed, which had not attracted much attention until within a few days, when after a long walk he experienced considerable pain in both legs.

June 7, 1878.—Diagnosis, bilateral aneurism of the femoral. On right side the tumor began 15.5 cm. below Poupart's ligament, was 14 cm. long and 11 cm. broad. On the left the tumor began 12 cm. below Poupart's ligament, was 15 cm. long, by 10.5 broad. Here was an opportunity to test the comparative efficacy of two methods. On the left leg the Esmarch bandage was applied beginning at the toes and driving the blood upward, three times a day for a half hour at each time. The elastic strap was then buckled around the leg above the aneurism. On the right side, compression was made upon the femoral on the cardiac side of the tumor 3 times a day, for an hour at a time. The pressure was made by a long stick, one end fastened to a beam which was placed across and above the bed, the other padded end was placed upon the artery, pressing sufficiently strong to arrest pulsation and was changed by the patient himself when it became painful.

On the 14th day, as the tumor of the right side began to harden and diminish in size, while that of the left side remained unchanged, the same method of direct compression was employed on this. July 15, thirty-eight days after beginning the compression, the pulsation in the aneurism of the right side suddenly ceased. The compression was discontinued. On July 16, twenty-six days after employing the direct pressure on the left side, the pulsation also suddenly ceased, though under peculiar circumstances. The pressure had been removed for several hours by the patient and he had been an hour asleep, when he was awakened by the sensation of a rush of blood to the head, ringing in the ears, flashes of light before the eyes, faintness, palpitation of the heart and a burning sensation in the legs. Fearing he was about to faint, he drank a quantity of water, which was followed by a profuse perspiration, especially of the lower extremities. These same symptoms, though in a much milder degree, he had experienced when the pulsation ceased on the opposite side. The compression was now entirely removed, but the patient was kept in bed for several days. At the close of July, the right tumor measured only 6 cm. long and 10 broad; the left 6.5 cm. long and 8 broad. Nov. 15, the tumors were still the same size, but hard, and the patient had regained the use and strength of his limbs.

Esmarch concludes that temporary compression by means of a staff is more promptly efficacious than his elastic bandage, because the former is larger and better borne by the patient.

That his elastic bandage has its merits is proven by his own and the experience of English and American surgeons, nor does he believe or accept that the single case of gangrene of the foot, reported by Bryant, as having followed the elastic bandage, was a result of the bandage, but of the ligation of the artery itself.—*Centralblatt für Chir.*, Feb. 1, 1879; p. 67.

THE HOSPITAL GAZETTE,

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

EDWARD J. BIRMINGHAM, A.M., M.D.,
FREDERICK A. LYONS, A.M., M.D.

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EDITORIAL.

MEDICAL CERTIFICATES.

Some of our antiquated contemporaries indulge themselves in periodical, generally annual, spasms of righteous indignation over practices of questionable propriety, more or less common in the medical profession. The outward indications of spasm, the froth, the twitchings, are plentifully present, and in such intensity that our lowest depths of pity should be stirred,—would be, were it not that there is such an extreme lack of awkwardness in all the side strokes, that we cannot restrain our risibilities or feelings of disgust. There is such a method in their escape from injury and in avoiding doing harm to others, that we cannot fail to discover the deception, and the contortions, the twitchings and the superfluous saliva pass for monkey antics.

The late violent effort in a few of the medical journals against the public endorsement of medicinal preparations by practitioners is a brilliant instance of these spasmodic, much-ado-about-nothing performances. The flourish of rhetoric was worthy of the most accomplished grinders of spread eagleism, was of the extravagant illuminated order, while the nimbleness of the performer in avoiding the salient points, lest some patron would be affronted, reminded us of the palmy days of Ravel, of Blondin, and of that other youth of vaulting fame so affectionately remembered in the pathetic ballad, "Flying Trapeze." The whole effort was akin to the low comedian's first essay in tragedy: his education betrays itself at most inopportune passages, and fun gets funnier because of its spontaneity and its inappropriateness. Lugubriously amused is the expression of our feelings where we witness a tragedy done unintentionally in a comedy style; the more earnest and anxious the actor becomes, in his attempt to be controlled by the tragic emotions, the more certain his style of speech, his action and his carriage, will

disclose his training, and broad grins and loud peals of laughter reward his attempts to draw tears and sighs. The rhetorical gymnastics necessary to the successful presentation of the medicine endorsing business have been of the same order; the nature of the performer, and his desires crop out in most unlikely places and in a most effectively amusing manner, and nobody feels bad except himself, when the performance has ended.

It seems to be quite easy to reason that professional dignity will be smothered every time that physicians leave their legitimate province, and become involved in trade, even to the extent of expressing a preference for a medicinal preparation. Not only does reason attain this conclusion, but experience has demonstrated it. Business has maxims and principles of its own manufacture, laws and customs founded thereupon, and by these everything that influences trade is carefully measured. For example, to find the cost of anything the rule of trade is, "deduct the anticipated profit from the present value, the remainder will be the cost," and as these terms have fixed relative values, it is idle to say that the "remainder" can ever be nought. Physicians' certificates with the M. D.; A. M., Professor of ———; Lecturer at ———; Member, &c., &c., to the exhaustion of the alphabet and infringing upon our table of notation, attached, appended and long drawn out in SMALL CAPS, as a matter of course against their wishes, extolling the properties of preparations, are a part of the fortunate pharmacist's stock in trade; often the most valuable part, because more attractive of dollars, and free from tax and risk of loss or damage. Rival pharmacists apply the rule for finding the cost of their paraded certificates, and they are very unwilling to believe the assertions of honest conviction and intended public benefaction, with which the physicians generally truly attempt to justify themselves. Competing trade knows the value as business cards of "A. M., M. D., Prof.," &c., &c., endorsements of medicines, mineral waters, foods and liquors, and coolly doubts the generous motive, offering to the astonished physician the sweet consolation, "If you had done *me* such a favor, you would have been better paid." Tradesmen strike hard even at the generous motive, when they inquire, why endorse one among the many reputable? why extol him above others equally as deserving of praise, and utter not a word of caution against impostors and frauds? The public would be better served with condemnations of these, than by praising one of the many deserving. Generosity usually takes the wider path when seeking public good.

Suspicious of base motives, imputations of dis-

but or mal-ignorance are among the charges with which the tradesman meets the certifying physician's attack, and in some cases with such confirming circumstances that the practice of certifying is fast losing its virtue.

It is no easy matter to arrive at the conclusion in the end, that the medical profession receives from the tradesman nothing in the certifying business; but it seems powerfully difficult for medical journals to express the same idea in words. They have waxed warm in their denunciations of these certificates being spread forth in daily papers; have written with a force that almost tempts one to think that by such public parade of these certificates these medical journals feared a loss of a pecuniary character to be about to fall to them. We have not studied this enough to speak positively as to the moving cause of the fierce denunciation of the one and the quiet resignation to that fate which emblazons the certificates on the other. The distinction is too finely drawn according to our ideas of professional dignity; a kind of domestic generosity waived the main question, and self-sacrifice tolerated the certificates in the medical journals so long as the advertising bills are promptly met. The idea of protecting professional dignity oozed out and away when the advertising pages were endangered. Virtue died at the point of profit.

The business men have followed their purpose, generally in a very proper manner, and to them belongs the glory and gain; the medical profession has stepped aside to involve itself in bitter contentions in the world of trade, bearing fruit in tarnished reputations.

ABOUT BOOKS.

Conspectus of Organic Materia Medica and Pharmacal Botany, by L. E. Sayre, Ph. G. Philadelphia: D. G. Brinton. 1879. pp. 220.

This work, as the title indicates, deals with the botanical portion of materia medica. It is a subject that offers but little attraction to the medical student, and one which, in all of our medical schools, is almost, if not quite entirely, neglected. Indeed, the student who has so much of a more practical and valuable nature to acquire, can scarcely be expected to spend very much time in making himself acquainted with the botanical names and characteristics of the medicinal plants. For the practitioner residing in a country village it is of course very well for him to know something of the botany of the indigenous plants that flourish around him, and it is well for all to be able to recognize a drug in familiar use by its physical characteristics. But it is of very little utility to a large number of the profession to be well up in the subject. The book, then, is one that commends itself not so much to the physician as to the pharmacist and practical

dealer whose province it is to see that his drugs are properly gathered, prepared, and freed from adulteration.

To this class the volume before us may be very highly recommended. It is practical, compact, and very well systematized, the latter feature being its chief merit, as all will recognize the great value to the student of a good classification. An excellent table is placed at the end of the volume, showing the solubility of various medicines, and the various tests for all the principal alkaloids.

The work is nicely printed on good paper and in clear type.

SELECTIONS FROM JOURNALS.

ANÆSTHESIA FROM IODOFORM.

The following peculiar case is translated from *The Practitioner*, 17th March, 1879. M. M. æt. 25, was affected with a suspicious ulceration of the penis, for which had been prescribed one gramme (15 grains) of iodoform finely powdered, a little to be used as a topical application. The next day, early in the evening, as he had not been seen since the previous day, his friends decided on forcing an entrance into his room, where they found him stretched on his bed in a profound sleep. As he did not reply to repeated calls, he was roughly shaken, and after a time they succeeded in awakening him. On perceiving the gleam of the gas, he appeared quite surprised that he should be disturbed so early in the morning. At last after they had explained to him his mistake, on reflecting on what could be the possible cause of so unnaturally prolonged a sleep, he perceived his box of iodoform on his bed, forgotten since the dressing of the previous day, the contents of which had evaporated around him. He had committed no excess the day previous, went to bed at the ordinary time and remembered nothing since then. During the day, the inmates had knocked loudly at his door frequently, but he had heard nothing. Two hours after awakening, following a hearty meal, the necessity for which he experienced immediately, his clothes and breath exhaled a very strong odour of iodoform; but beyond a slight giddiness he experienced no inconvenience. This fact is interesting and worthy of note on account especially of the weak dose of iodoform, which, absorbed in minute quantities by the pulmonary mucous membrane produced complete anæsthesia for twenty-four hours, although during the lapse of that time the air of the apartment was largely renewed by an open window. Up to the present, the experiments made on the inhalation of iodoform on different animals have resulted only in a transitory anæsthesia accompanied by exhilarating effects, resembling the symptoms produced by protoxide of nitrogen, but never a profound and long continued sleep.—*Can. Lancet*.

TOBACCO POISONING.

The *Pester Med.-Chin. Presse*, May 1st, 1879, publishes the following case of poisoning by nicotine, which was mistaken for cancer of the stomach. The error was only discovered at the patient's death. The author of the paper, Dr. Thukay, doubted the correctness of the diagnosis, from the youth of the patient (eighteen years) and the cir-

cumstance that the body was very well nourished and the skin presented a strong icteric colouring. He accordingly made a *post mortem* examination, and found that all the organs were perfectly normal, the stomach and intestines being much inflated by gas. On the former being opened, a large amount of gas escaped from it smelling strongly of tobacco. One-third of the contents of the stomach consisted of a thick coffee-colored liquid, also smelling of tobacco. Tobacco-dust and small pieces of tobacco leaves were also found in the intestines. The mucous membrane of the latter was anæmic. The gas which escaped from the bowels did not have the characteristic smell of tobacco. The author learned from the medical man, who had treated the patient, that he had gradually lost strength during the last three months and suffered from attacks of colic, which resisted all treatment and generally stopped spontaneously. On the eve of his death, he had had another attack of colic; this was repeated eight hours before death, and was accompanied by nausea, hic-cough and frequent vomiting of a substance having the characteristic appearance of coffee grounds; from which symptoms the diagnosis of cancer of the stomach had been made. The patient then became very restless, lost consciousness, and died in an attack of tetanus. It is to be regretted that the previous history of the patient could not be traced more clearly. As death was here evidently brought on by chronic poisoning by nicotine, it would be interesting to know how long previously to all symptoms the patient had indulged in the habit of chewing tobacco, and how much he was in the habit of taking every day, and whether the attacks of colic were due to the nicotine in the stomach or sprang from some other cause.—*Brit. Med. Jour.*

POISONING BY MUSSELS.

An interesting case, of which the narrator himself was the subject, is related by Dr. O. Bruun in the *Hospitals-Tidende* for March 5th. He prefaces his narrative by stating that his family history was good, and that he had always enjoyed good health. On January 20th, 1877, being much taxed with practice and night-work, he was attacked with a slight catarrhal fever with a little cough, notwithstanding which he went on with his duties. On the 26th, at 7.30 P.M., he partook with a friend (who was not affected by the food) of some fresh boiled mussels—which he had often before eaten without injury. On his return home, he had during the night itching of the wrists and neck, cardialgia, and a sensation like that which precedes the narcosis produced by chloroform or nitrous oxide. The body became covered with urticaria; and there were noises in the ears and scintillations in the eyes, with occasional diplopia. An emetic of ipecacuanha and tartrated antimony caused the expulsion of mussels and mucus. He now began to feel twitchings in the anterior muscles of both thighs; these were relieved by chloral, which produced some sleep, during which the muscular twitchings continued. On awaking, he felt rheumatoid pains in the flexor aspect of both arms, especially the left, and along the spinal column. Two days later, the muscular twitchings

had nearly disappeared, and he went to see a patient residing in the story above him; on going down stairs, he suddenly perceived a weakness in the left leg. From the daily reports of the case, which are given up to April 1st, there appears to have been a recurrence of the muscular twitchings. There was also severe pain in the legs and back, and motor power was much impaired. On February 15th, it is noted that the left leg was less than the right; the vastus internus muscle especially being diminished. The pain was now less; walking and other movements were performed feebly and unsteadily. On March 26th, the twitchings were more frequent everywhere. The pain in the back had increased in severity, and spread along the peripheral nerves, affecting even the arms. All the muscles reacted to the induction current; the sensory nerves performed their functions normally. In June, he began to drive out, and appeared to receive benefit from the fresh air. In July there was an increase of the feeling of weakness in the legs and arms. From September there was a gradual improvement; changes in the weather had much influence in his condition, and during a frost at the end of December there was a slight relapse; but, in February 1878, he was able to resume his practice. From this time up to January 1879, he had occasional relapses, but the improvement continued; and at the last named date he was able to walk two-and-a-half (English) miles without fatigue, and to perform obstetric and other operations without trouble. There was still some atrophy of the left leg, which still remained weak. The treatment consisted in the application of leeches to the lumbar region and ice-bags to the spine, the occasional administration of morphia and chloral, and the use of the iodide of iron and potassium, and the constant current along the spine. He has not yet been able to meet with an account of another case in which similar symptoms of nervous disorder were the result of poisoning by mussels.—*Brit. Med. Jour.*

TREATMENT OF CATARRH OF THE ANTRUM OF HIGHMORE.

Dr. G. Wolfrom contributes to the *Berliner klin. Wochenschrift*, No. 16, 1879, the account of a case of this character in which a very simple method effected a cure after more violent surgical means had failed. The catarrhal condition was of several years' standing and the discharge exceedingly offensive. A physician who had previously had the patient in charge, had ineffectually attempted treatment by a curved catheter. He then removed a molar tooth and cleansed the cavity through its socket; but this cavity was unfortunately permitted to close, and when the patient came into the hands of the writer he would no longer permit the use of any instruments. The douch was tried, with the patient's head in such position as might possibly incline a flow of fluid into the middle fossa, but this was ineffectual, as the douche removed only the secretion in the inferior fossa which originated higher up. The writer felt convinced that if forced inspirations were taken through the nostrils, a part at least of the inspired air would reach the upper fossa and enter the antrum. He therefore con-

child to attempt the use in this manner of a two per cent. turpentine and glycerine solution in the form of a vapor, and to increase the force of inspiration by the use of a small inhaling apparatus. This was resorted to twice daily, immediately after cleansing the inferior fossa with the douche. At the end of two weeks he changed his treatment to a one per cent. solution of alum. The secretion, sometimes still fetid, diminished in quantity. At the end of six weeks the infant was entirely relieved, and a year later had not returned.

The writer strongly advises, that this form of treatment be given ^{carefully} before resort to surgical procedures. *et Pepsini* (H. *Med. Clinic.* and *Salicarb.*).

TURPENTINE IN WHOOPING COUGH

Gerth cured a case of laryngeal catarrh by placing twenty drops of turpentine on a handkerchief, held before the face and causing about forty deep inspirations to be taken. Repeating this three daily, the cure was quite rapid. In the same family he found an infant fifteen months old in the convulsive stage of whooping cough, quite exhausted, and vomiting all ingesta. There was at the same time slight bronchial catarrh with slight evening rise of temperature. Gerth decided to experiment here also with turpentine. He directed the mother to hold the moistened cloth as above, before it when awake, and to drop the oil upon its pillow when asleep. The result was most happy. Within the twenty-four hours the frequency and severity of the attacks notably diminished. The child's strength was sustained by stimulants, and improvement was very rapid. Within a year pertussis became epidemic in his vicinity, and he repeatedly tested the drug in this way. He gave it to children of all ages, and in any stage of fever. The initial catarrh, the convulsive, and the final catarrhal stages were all decidedly benefited, the spasmodic attacks being in many cases aborted. — *Chicago Med. and Sur. Jour.*

OPERATIVE INTERFERENCE IN THE TREATMENT OF INFLAMMATION OF BONE.

Mr. Bryant, at the meeting of the Medical Society of London, read a paper on this subject. The following conclusions were drawn: That in acute periostitis or endostitis a free incision down to the bone by relieving tension and giving exit to inflammatory effusion, does nothing but good, and that it should be made as early in the progress of the case as the diagnosis will justify, and, if possible, before pus has formed. The very commonly fatal termination of these cases by blood-poisoning, when left to run their course unchecked, rendered the measure imperative. That in all forms of endostitis or osteo-myelitis of long bones, in which more or less intense and persistent pain is a prominent symptom, the operation of drilling, trephining, or making a free opening into the bone, should be entertained, as any one of these measures tends to check the progress of the disease, and in most cases relieves pain. In flat bones, such as those of the head, and in cases in which the preceding measures seem too severe, the simpler operation

of cutting down upon the bone and separating the periosteum from it should be performed. That in all cases of suspected abscess in bone the same operative procedure could be carried out, the operation of trephining intended to be directed to be the seat of suppuration being generally as successful in relieving pain as drilling. — *London Lancet.*

THE TREATMENT OF HÆMORRHOIDS BY INJECTION.

Prof. Edmund Andrews, of Chicago, has recently investigated this subject with much care and labor. This plan of treating piles has been practiced extensively of late by itinerant quacks throughout the West. Professor Andrews has corresponded with these people, as well as with regular surgeons. Carbolic acid is the medicament chiefly used, the strength of the injection varying among operators from pure acid to one part to twenty of some incipient, as olive oil, glycerine, etc. Ergot is sometimes added. Creosote and persulphate of iron are used by a few. Professor Andrews has procured the history of thirty-two hundred and ninety-five cases, operated on by all sorts of people. Nine are said to have died from the effects of the operation; of these only four can, he thinks, be justly charged to the treatment. There were five cases of dangerous hæmorrhage, five of less danger; ten had abscesses; twenty-three had sloughing, mostly of the piles only; eight had suspected embolism of the liver; one abscess of the liver; two had stricture of the rectum; two had severe inflammation; seventy-seven had violent pains, lasting often for days; six were dangerously sick in bed from two to six months; one had permanent impotence; in one an injection caused dangerous carbolic acid poisoning; there were seven relapses, and eight failures to cure. Of the cases of death, one had large abscess, fever, and pyæmia, and died on the fifth day; the patient previously had good health. One had apparent embolism of the liver, torpid bowels, jaundice, large inguinal and axillary glands, and death occurred ninety days after the operation. One patient was a man of eighty-four years; the injection was made into the prostate glands, and death took place in three days. A fourth case had a similar accident and result as the last. One case of great suffering was where the plan was pursued of tearing open the hæmorrhoidal veins with a bunch of needles. Great bleeding took place, intense suffering, and the family doctor was consulted. He found the quack had plugged up the opening made by his needles with a small cork. The operation of injection of piles is not painless—only one patient in four so saying. Andrews thinks the operation is not as safe as that of the ligature. Of three thousand cases, one in sixteen is known to have suffered some disaster, from severe pain to death. He thinks large injections are more likely to produce embolism, abscess, and sloughing than small ones. There is no evidence that embolism of any other organ than the liver has occurred. Strong injections are open to the same objections as large ones, except that they are less likely to produce embolism. Pain depends

on the situation of the pile; most pain occurs if it is near the verge of the anus.

The conclusions are that the operation is a proper one for selected cases. The best agent is carbolic acid and oil or glycerine, one part to ten, twenty, or thirty. If glycerine is used, morphine, chloral, or iodolorm may be added for an anodyne. The proper quantity to inject at one time is two to four drops, and the operation may be repeated every four to ten days. The surface should be protected with a smearing of oil or vaseline, and the hypodermic needle should be kept in place some minutes after the injection to prevent return of the fluid upon the surface. A very sharp needle should be used, and the injection made slowly. The treatment should be used for internal piles only, and but one pile at a time should be attacked. The patient should be kept in bed eight to ten hours after each injection to avoid hæmorrhage. The rectum may be tamponned firmly above the pile to prevent hepatic embolism, the tampon being kept in place twenty-four hours after the operation, but this procedure is hardly necessary unless the stronger injections are employed. Finally, he considers the operation not as safe or eligible as the ligature, but when performed with care as good as any other operation except the ligature.—*Boston Med. Jour.*

A PECULIAR FORM OF MANIA.

Dr. Meschede described, at the meeting of the Naturalists and Physicians at Cassel, a peculiar form of mania which he had observed, and which is the reverse of the mental disease known under the name agoraphobia, in which the patients are suddenly taken with a sensation of terror and giddiness when attempting to cross a large open space or when entering a hall or facing a large multitude. In the disease observed by Dr. Meschede, the patient, a young man aged 20, was subject to oppression and giddiness whenever he entered a small room or a narrow space. He had been obliged to leave his studies and to apprentice himself to a farmer. He could not sleep in a room, but camped out in the fields and woods during summer; and only during the coldest part of winter could he be prevailed upon to sleep in a large and airy apartment with all the windows open. There was no hereditary predisposition, but certain sensorial anomalies existed and he had also suffered for several years from ear-disease. There were no other traces of mental affection. Another similar case was that of a patient suffering from diabetes who experienced much the same sensations. The author thinks that this disease ought to be classed under the same head as agoraphobia, as in both the characteristic symptom is that the patient cannot by any means form an accurate conception of the dimension of his surroundings. He also mentioned a third curious case; that of a man who, after recovering from poisoning himself with prussic acid, could not remain in the middle of the road when he saw a vehicle approaching him, even at a considerable distance, but was forced, as it were, against his own will, to stand aside without waiting for it to come nearer.—*Ber. Med. Jour.*

PERMANENT OBLITERATION OF LIGATED VESSELS.

The changes produced in blood-vessels by ligatures and in consequence of thrombi have long been the subject of experimental investigation, and the method of organization of a thrombus and the manner in which a vessel becomes obliterated have been rendered sufficiently clear by the numerous careful and critical observations of recent workers.

Results have generally been obtained from the lower animals, but Raab has made a study of the quantity of material derived from the twitches of the nature of the process, and the pain in the back of the vessel of the frog, read along the peripheral of the vessel.

It appears from his investigation that there is no essential difference in the nature of the process from that taking place in the lower animals, and that an inflammatory proliferation of the endothelium and the other layers of the wall of arteries and veins takes place in consequence of the irritation of the ligature and the accompanying wounding of the adjoining soft parts. Therefore a permanent closure of the ligated vessel takes place rapidly and safely only when vessels are healthy; if they are atheromatous, there is either no healing or the process takes place with difficulty. The new-formed tissue which closes the canal of the vessel is at first very cellular and juicy, but later becomes transformed into a dense fibrillated connective tissue. The different layers of the wall also lose their peculiar structure, and finally the obliterated end of the vessel becomes converted into a fibrous cord. A thrombus is not essential to the process, and when present there is no evidence of its organization, but it disappears with the advance of the tissue produced by the wall.—*Boston Med. Jour.*

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week, powders. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

POWDERS.

169. *Diarrhea Powder* (Inf. H.)

℞ Bismuthi Sub-Carb.....	gr. 2
Acidi Tannici.....	" 1
Pulv. Ipecac. Co.....	" ¼

Mix. One dose, for children, in Diarrhœa.

170. *Pulvis Bismuthi Co.* (O. D. P.)

℞ Bismuthi Sub-Nitr.....	}	
Sodii Bicarb.....		
Pulv. Sacchari.....		aa p. e
Pulv. Acaciæ.....		
Pulv. Zingiber.....	}	

Mix. Does a Tablespoonful, for Adults, in Dyspepsia.—Dr. Wheelock.

171. *Pulv. Bismuthi Crete et Opii* (O. D. P.)
 R Bismuth. Sub-Nitr. gr. 30
 Crete Precipit. " 30
 Pulv. Opii. " 1
 Mix. Divide into 10 powders For Children, in Diarrhœa.—Dr. J. Lewis Smith.

172. *Pulv. Bismuthi et Pepsini* (O. D. P.)
 R Bismuthi Sub-Nitr. gr. 4
 Pulv. Pepsini. " 1
 Mix. One dose, for Children, in Diarrhœa.

173. *Pulv. Bismuthi et Pepsini* (INF. H.)
 R Bismuthi Sub-Nitr. gr. 4
 Pepsini. " 1
 Mix. One dose, for Children.

174. *Pulv. Bismuthi et Pepsini* (O. D. P.)
 R Bismuthi Sub-Nitr.
 Pepsini. aa gr. 5
 Mix. One dose, for Children.—Dr. Swezey.

175. *Pulvis Glycyrrhizæ Co.*
 (DOVER'S POWDER.)
 R Opium. Sub-Nitr. gr. 10
 Pulv. Capsici. " 3
 Pulv. Opii. " 1
 Mix.—Dr. Alonzo Clark.

176. *Pulvis Glycyrrhizæ Co.*
 R Pulv. Sennæ. part. 2
 " Glycyrrh. Rad. " 2
 " Licium. " 1
 Sulphuris. " 1
 Pulv. Sacchari. " 6
 Mix. Dose : 30 to 60 grains.

177. *Pulvis Ipecacuanhæ Co.*
 (DOVER'S POWDER.)
 R Pulv. Opii. (12 P.)
 Pulv. Ipecac. aa pars 1
 Sacchari Lactis. partes 8

Mix. The Dover's Powder furnished contains opium, which has been assayed, and adjusted to the strength of 12% of morphia. The potassium sulphate is replaced by milksugar, as proposed by Dr. Piffard. The official Dover's powder, containing potassium sulphate, will be supplied on specially designating it as "U. S. Ph."

178. *Pulv. Opii.*
 (12 PER CENT.)

The powdered Opium supplied from the General Drug Department is assayed, and is adjusted to the strength of 12 per cent of morphia.

179. *Pulvis Morphiæ Co.*
 (TULLY'S POWDER.)
 R Morphia. Sulph. gr. 1
 Camphoræ
 Pulv. Glycyrrhizæ.
 Calcii. Carbonat. aa gr. 20

Mix. 10 grains contain $\frac{1}{2}$ grain of morphia sulphate. This formula is taken from Dr. Tully's Materia Medica. (Springfield, 1858, vol. 1, page 153.)

180. *Pulvis "Trousseau."* (O. D. P.)
 R Bismuthi. Sub-Nitr.
 Sodii. Bicarb.
 Crete Preparate.

Mix. Divide into 12 Powders.

181. *Sulpho. Alkaline Mixture.* (O. D. P.)
 R Sulphur. Sublim.
 Potass. Bitart. aa p. e.
 Sodii Bicarb.
 Sodii et Potass. Tart.

Mix. Dose : a Tablespoonful mixed with sweetened water.—Dr. Maxwell.

NEWS ITEMS AND NOTES.

Changes in the Faculty of Medicine in the University of New York.—Prof. John T. Darby has resigned the Chair of Surgery and has been elected Emeritus Professor. Prof. J. Williston Wright has been transferred to the Chair of Surgery, and Dr. Wm. M. Polk, formerly Professor of Materia Medica in Bellevue College, has been chosen to fill the Chair of Obstetrics and Diseases of Women and Children. Prof. Joseph W. Howe has resigned.

Changes in the Faculty at Bellevue College.—Dr. A. A. Smith has been appointed Lecturer to fill the vacancy caused by Prof. Polk's resignation, and Dr. Joseph W. Howe has been elected Professor of Clinical Surgery.

Cremation.—The Society for Cremation in Berlin has recently become amalgamated with the General Sterbecasse (fund for widows and orphans) under the following conditions. Each member is bound to pay 60 pfennige (12 cents) a month to the fund to which he or she belongs. In case of death, the sum of 300 marks (\$75) is paid by the fund, not to the friends of the deceased, but to the cashier of the Society for Cremation. The latter then takes entire charge of the body, sends it to Gotha, and pays all the expenses of the cremation, etc. The bodies of persons who were not members of the society will be sent to Gotha by the latter, after paying the sum of 300 marks to the cashier.

Transmission of Diphtheria from Fowls.—M. Trasbot has of late made several experiments, for the purpose of testing M. Nicati's supposition that the diphtheria of fowls could be transmitted to human beings. According to the results of these experiments, which he communicated to the Société de Biologie, false membranes, blood, and mucus, which were taken from diphtheritic cocks and hens and applied to the mucous membranes, or introduced into the cellular tissue, of several animals, have only given negative results. These experiments are of but little value in the dog, as he is not subject to diphtheritis and possesses a remarkable immunity against inoculation; but they have had more effect on the pig, which is more predisposed to pseudo-membranaceous affections. If the virus taken from a fowl were inoculated upon another fowl, the result was fatal. M. Faiès, a pupil of M. Trasbot, even went so far as to try the experiment on himself, by keeping in his throat for several

minutes shreds of a diphtheritic membrane taken from a cock, and he has remained quite well. It seems, therefore, as if M. Nicati's hypothesis were erroneous.

Suberine for Chapped Nipples.—The treatment recommended by M. Brochard, *L'Union Médicale du Canada*, (*Chicago Medical Journal*), for fissured nipples is so simple that it deserves to be popularized. When chaps exist on the nipples, whatever their extent, the nipple should be washed with pure water, and then dried and dusted with suberine, which, as is known, is impalpable cork powder. The author has used it for several years, and prefers it to lycopodium for infants, because it contains tannin, and besides is much cheaper. Over the suberine is placed a piece of gold beater's skin, cut star-shaped, in the centre of which several punctures are made with a fine needle. Every time the child is suckled, the suberine is washed off with water, and the gold-beater's skin replaced, the child drawing the milk through it without giving pain. When the child is done, the suberine is again applied as before, and so on.

A Pleasant Method of Administering Castor Oil.—consists, says Dr. Starke in *Berliner Klinische Wochenschrift* No. 16, 1879, in mixing the oil with coarse granular sugar until a thick paste is formed. This usually requires about one part of oil to three of sugar. The addition of a small amount of cinnamon powder suffices to give the mass a pleasant taste. The writer finds this candy uniformly successful in children who will rebel against the oil in any other form. The bulk is so great that this mode of administration is almost necessarily confined to children's practice. For adults the addition of compound liquorice powder, in the proportion of one part to two of oil will form a bolus which can be readily swallowed.

Preserving Grapes.—Travellers say that the Chinese have a method of preserving grapes so as to have them at command during the entire year by cutting a circular piece out of a ripe pumpkin or gourd, making an aperture large enough to admit the hand. The interior is then completely cleaned out, the ripe grapes are placed inside, and the cover replaced and pressed in firmly. The pumpkins are then kept in a cool place, and the grapes will be found to retain their freshness for a very long time.

To Hasten the Action of Quinine.—Dr. Starke, *Berliner Klin. Wochenschrift* advises that before swallowing powders or pills of quinia, a weak tartaric acid lemonade be taken. This procedure not only greatly accelerates the solution and absorption of the quinia, rendering its physiological action much more prompt, but also obviates that unpleasant gastric irritability so common after the administration of large doses of this drug.

Utilized Sweetness.—A venture by an enthusiast in the Homœopathic Dispensary in the town of S——, Ill., soon came to grief, and in disgust the apothecary advertised his entire stock at auction. Before the sale, his glassware was frequently praised by prospective buyers, who dropped in to

make examination prior to the sale. Taking advantage of this, and of his sadly bought knowledge of the lack of popular appreciation of the pretty little drops of sweetness within, he ordered the jars to be emptied into an empty flour barrel, that they might be thoroughly cleaned, and appear at their best.

His precaution was well taken; the glass jars brought a good price; ditto the counters, the fountain and shelving. That flour barrel, three-fourths full of the infinitesimal drops of sweetness, was the last item; 28 cents took that prize. The estimable Mrs. Jones, relict of the late Hon. Hezekiah Ebenezer Jones, was the purchaser.

Neighbor Smith, who had been at the sale, nursed his curiosity for two days, about that purchase by the widow. The third day, however, was too much for him, and luckily for him, on the evening of that day, meeting by a well-planned chance, after hurriedly passing the time-honored weather and hygienic salutations, he asked what she intended to do with those pellets.

She proudly replied, "That it was the best bargain I ever made in my life. You see me and the girls just pound up a bowl full every day, and it would do your heart good to see my boarders sprinkle it over their rhubarb pies. I reckon it save I me six dollars for pulverized sugar. You must come in and try it."

Inoculation of Tuberculosis.—At a recent meeting of the Académie de Médecine, M. Colin showed a collection of pathological specimens which he had prepared from the bodies of two rabbits after inoculating them with tuberculous matter. The inoculation had determined an outbreak of tuberculosis in the entire organism; the skin, muscles, bones, capsules of joints, tendinous sheaths, the peritoneum, pleuræ, meninges, etc., as well as the viscera, with the exception of the liver, were pervaded with tubercles. M. Colin observed that this instance distinctly proved that the inoculation of tuberculous matter may produce a tuberculous diathesis which attacks all the tissues and organs of the body.

Marriages in Europe.—It results from recent statistical tables that out of 10,000 inhabitants above fifteen years of age are married: In Hungary, 6,475; in France, 5,566; in England and Wales, 5,398; in Austria, 5,271; in Italy, 5,270; in Denmark, 5,191; in Germany, 5,107; in Norway, 5,065; in Sweden, 4,952; in the Netherlands, 4,940; in Scotland, 4,678; in Belgium, 4,634; in Switzerland, 4,582; in Ireland, 4,313. It must, however, be borne in mind here, that the age at which marriages are contracted varies very much in different countries. In Germany, more marriages are contracted in the east and north than in the south and west. The little state of Schwarzburg-Sondershausen in Thuringia has the largest number of married inhabitants, and the lowest number of marriages are made in Bavaria and along the western frontier of the German Empire.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should remember that the amount of a year's subscription. We cannot undertake to supply beyond the number of copies in the future we send out our entire edition each week. We ask every member of the profession who receives the number, to give us a notice of a year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CLINICAL LECTURE ON TWO CASES OF HEART DISEASE AND ON A CASE OF HYDROPERITONEUM.

Delivered at Bellevue Hospital, New York,

BY

AUSTIN FLINT, M. D.,

Professor of the Theory and Practice of Medicine in Bellevue Hospital Medical College.

(Reported for THE HOSPITAL GAZETTE.)

This patient was the first one whom I presented to you at my clinic this spring. You, no doubt, remember the occasion, some two weeks ago. You recall the fact that the man's life was saved by prompt bleeding. He was very low with pneumonia when he was brought here—so low and so near death that it was a question with the resident as to whether there was any use in transferring the patient from the stretcher to a bed. But it was done, and his life was saved by venesection.

So soon as he was on the high road to recovery from the pneumonia it was found that we had several other lesions to deal with. There was well-marked disease of the kidneys, together with enlargement of the heart and coexistent valvular lesions. He also had hemiplegia, caused, no doubt, by the formation of a clot. Under the proper treatment, I am happy to say that the man has progressively improved, and that he will be discharged to-day as convalescent. Let me read you his history.

CASE I.—P. S., æt. 45, a German by birth and a shoemaker by trade. He was admitted to the wards on April 8. His family history was good, he had always been temperate, and he had never contracted venereal disease. He had not regained consciousness at the time of his admission, so that all that could be gathered then was that he had been sick with pneumonia for several days previous, and that for six hours before admission he had been in a profound state of apoplectic coma. There was great dyspnoea and cyanosis, with sthenic pulse, large bronchial rales throughout the chest, and groaning and grunting respiration. The heart was enlarged, and death was very imminent. The resident bled him $\frac{1}{2}$ xii. from the arm, whereupon the œdema of the lungs disappeared in half an hour, and all the other symptoms were relieved. At that time his temperature was 101° , his respirations 28, and his pulse 95 to the minute. There was both hemiplegia and hemi-æsthesia of the left arm and leg. The urine was examined and found to be of acid reaction, pale color and of a specific gravity of 1010. It contained albumen. The feces were passed involuntarily in bed. It was then determined that the kidney lesion was a sort of fibrinoid Bright's disease.

On the next day the patient's breathing became quiet. On April 21 the temperature was normal

and so was the pulse. The patient knew where he was. His left arm and leg still remained completely paralyzed. On April 28 he could partly raise his left leg. Power was plainly beginning to return. He could also extend his left arm if it were placed in a position of flexion. On May 2, that is to-day, the note is made that the cerebation is normal.

I will now proceed to examine his heart in your presence. It is important to fix upon the lowest apex beat. This I find to be in the sixth interspace, about $2\frac{1}{4}$ inches to the left of the *linea mammaria*. We may exclude the possibility of aneurism or tumor, and conclude upon the existence of enlargement. There is not much enlargement, however. I must modify the statement made in the history which I have just read you that there has been coexistent valvular lesion, for there is none. I am, therefore, warranted in saying that the hypertrophy is simple hypertrophy, and is unattended by any cardiac murmurs. There is probably an enlargement of the left ventricle, as proven by the intensification of the aortic second sound, which is much louder than the pulmonic.

What is the ætiology of the man's enlarged heart? you will ask, and what its relation to the renal disease? The renal disease is what is known as cirrhotic kidney, and it is with this form of disease of the kidneys that we usually find simple enlargement. That is, if we exclude the existence of emphysema of the lungs, in which case the *right* ventricle is enlarged.

As regards the relation between cirrhotic kidney and enlargement of the left ventricle, I believe that the heart disease is the cause and not the effect of the kidney trouble.

You see that the patient can now move his left arm and leg quite well.

CASE II.—This is a case of valvular lesions of the heart in connection with hypertrophy, which will furnish some very instructive illustrations. The woman is quite feeble. She lies down with difficulty and suffers greatly from dyspnoea. She was in the hospital last winter. There is one very interesting symptom in her case, namely, well-marked venous pulse. I will read her history.

She has been a domestic and is single, 37 years of age, and of German parentage. She presents on family history, either of rheumatism or of cardiac disease. She has always been generally healthy. Fifteen years ago she had acute articular rheumatism. I suppose it is almost superfluous to say to you that by far the great majority of cases of valvular disease of the heart coming on after childhood are directly traceable to rheumatism. In this case the rheumatism preceded the heart disease by many years. The original attack of rheumatism lasted three months. Four months ago she first noticed œdema of her feet and ankles. The changes which have now become so marked have probably been going on gradually all the time.

Suppose I had examined the woman ten years ago, I would have found the lesions then in a state of progressive development. Would it have been judicious for me to tell the woman that she had heart disease at that time? No; for there was then no appearance of the disease, so far as the woman

knew, and it would have done nothing but destroy her piece of mind.

Lately the oedema has been steadily increasing. Three weeks ago dyspnœa and palpitation supervened, together with dizziness and dimness of vision. She has had no bronchitis at any time; the arteries in her neck pulsate violently; she is pale and has a marked venous pulse. At one time we could distinguish two venous pulses with each movement of the heart. There is well-marked oedema. There are several cardiac murmurs. The heart is enlarged, and its apex beats in the sixth interspace. The urine is acid and contains albumen.

On February 6th the patient was steadily improving under the use of digitalis and stimulants. She became comfortable and cheerful, and the venous pulse disappeared. On February 8th she was still better, and on February 16th was discharged—to all intents and purposes well.

On May 1st she came back. For a short time after her discharge she had been well, but her symptoms returned and she gradually grew worse. The oedema and ascites were again troublesome. The hypertrophy was less marked, but its place had been taken by dilatation.

Our objects of treatment are the relief of the valvular lesions, the hypertrophy and the kidney disease. If we can improve the patient's appetite and digestive powers, we may be able to see a second marked change for the better, although she suffers so much from orthopnœa and is so very feeble to-day.

She has (1) enlargement of the heart, as is very clearly proven by the flush on her cheeks and skin. The apex beat of the heart is on the mammary line and in the sixth interspace. That shows that the enlargement is not very great. The dilatation may predominate over the hypertrophy, and there is, no doubt, a certain amount of anæmia and general debility. The enlargement is not sufficient to explain the existence of much dilatation.

The right jugular vein pulsates very visibly, but is the pulsation venous or is it due to the near presence of an artery? Let us see. If it is venous, pressure just above the clavicle will stop it. It does so, it must be venous. This patient, as I have already told you, had a double jugular pulsation when she first came into the hospital.

A venous pulse is a mechanical condition, and is produced by a very freely regurgitant current through the tricuspid orifice. This large and free regurgitant force is sufficient to be felt in the jugular vein and to give rise to a venous pulse. I know that what I feel is this regurgitant pulse, because it is synchronous with the arterial vibration. I test this by putting my finger on the carotid pulse. But again, another venous pulse, separate and distinct from this one, may be produced by the contractions of a dilated right ventricle and hypertrophied right auricle, producing another backward current. If the pulse is auriculo-venous; it precedes the pulsation of the artery, and may be determined in the same way as the tricuspid regurgitant current.

We may have both these pulses together, as has already been the case with this patient—one preceding and one synchronous with the arterial pulsation. You thus see how it is that a venous pulse may

signify one or two pathological conditions. So much for the venous pulse. Now, what are the murmurs present in this case? They are aortic and mitral, direct and regurgitant, and tricuspid regurgitant—five all named. I first place my stethoscope over the second interspace just to the right of the sternum, and here a systolic murmur (aortic direct), which is transferred to the carotid artery. Then, putting the mouth of the instrument on the left side of the cartilage of the fourth rib, I can distinguish a short, distant sound, not well marked, but which cannot be any other than an aortic or pulmonic regurgitant murmur, and we may exclude the second, for it is very rare. Here is another point of interest, for we usually find, or, rather hear, an aortic regurgitant in the second interspace. When it is not heard there, it can always be found where I hear it here, *i. e.*, if such a murmur exist at all. These two murmurs—aortic direct and regurgitant—are those most easily recognized, both by reason of their time and the peculiarity of their sounds.

Then, in addition to these, I hear an abrupt, vibratory and blubbery sound over the mitral orifice. This sound is presystolic, and can only be mistaken for an aortic regurgitant murmur. Its time and character are most clearly marked here. It is, without doubt, a mitral direct, and is produced by what is known as a "button-hole slip"—a curtain-like contraction of the mitral orifice, giving rise to the peculiar vibratory character of the murmur. Then, furthermore, when this murmur ends, I get a high-pitched blowing sound, which must point to some slight insufficiency of the mitral valve.

When the stethoscope is placed at the right lower border of the heart, a soft and tolerably loud blowing sound can be heard. This sound is systolic, and must be either a tricuspid regurgitant, aortic direct or transferred mitral regurgitant sound. It can be neither of the latter, for it differs in quality from both, one being a high and the other a low pitch sound. Taking this murmur in connection with the venous pulse, we may be quite confident that it is a tricuspid regurgitant sound.

HYDROPERITONEUM.

Here is one other case I want to show you.

H. M., æt. forty-seven, single, a domestic. Applied for admission on April 29th. Nothing definite could be ascertained with regard to her family history. *She says that she never drank alcoholic stimulants.* Has always enjoyed good health until about six months ago, when she began to notice oedema of the lower limbs. Two weeks ago her abdomen began to increase in size. She became unable to walk, suffered greatly from dyspnœa, and found it difficult to remain in the recumbent position.

Physical examination showed that the apex beat of her heart was pushed to the left, and that there was fluid in the right pleural cavity. No cardiac murmurs could be distinguished. The patient stated that she noticed the oedema of her legs and feet before the abdomen began to swell. This statement is true of the majority of cases of abdominal dropsy—at least the swelling of the abdomen is not the first symptom noticed.

Abdominal dropsy is often attributed to pressure on the veins. This being the case it would seem

that the œdema of the lower extremities must also be due to the same cause, and hence that both conditions should occur simultaneously. And this is probably the case—the effusion into the peritoneum going on for some time before it becomes noticeable.

Six hours after this patient's admission, the dyspnœa increased so much that paracentesis abdominis was performed and six quarts of fluid withdrawn.

On May 1st her breathing became much easier, the œdema became less marked, and the apex beat began to travel back to its normal position. There is no valvular lesion of the heart, but a large right-sided pleural effusion remains.

I want to say a few words to you regarding hydro-peritoneum as a symptom of cirrhosis of the liver. This woman affirms that she has never been addicted to liquor. Now the over-use of alcohol is the great cause of cirrhosis of the liver. Is this a case of hydroperitoneum dependent on cirrhosis of the liver? There are other affections of the liver, such as white liver, or atrophied liver, which give rise to dropsy. As a general rule, I think it safer to trust to pathological laws than to human testimony, and yet this woman's appearance bears out her statement. She does not look intemperate. Indeed, I think we may exclude cirrhosis. There are other causes. I call to mind this minute a patient of mine, a gentleman of fifty, who had first copious vomiting of blood and then dropsy of the feet and belly. He had also a greatly enlarged spleen. Enlarged spleen cannot, of itself, cause hydroperitoneum, though it often accompanies it. In his case the cause of all the trouble was found to lie in a thrombus obliterating the calibre of the portal vein near its entrance to the liver, and so producing congestion of the portal vessels. Here we may have something of the same sort, or there may be some tumor so situated as to give rise to the œdema and ascites. At any rate, I take the woman at her word here, and throw cirrhosis out of the question as a possible cause of her present condition.

ORIGINAL ARTICLES.

ILLUSTRATIONS OF THE VALUE OF TEALE'S METHOD OF FORCED DILATATION OF THE SPHINCTER VESICÆ IN INCONTINENCE AND EXCESSIVE IRRITABILITY OF THE FEMALE BLADDER.

ADDINELL HEWSON, M.D.

Read April 1, 1876, before the Philadelphia College of Physicians.

In the beginning of 1876, my attention was directed to an article in the number of the *London Lancet* for Nov. 27, 1875, contributed by Mr T. Pridgin Teale, of Leeds, for the reason that anything from the pen of that original thinker and ingenious surgeon always serves to stop me in my usually hasty glances over the medical journals of the day. This article was on "Forced Dilatation of the Sphincter Vesicæ in Incontinence and Excessive Irritability of the Female Bladder."

Mr. Teale there stated that the substance of his essay had been read before the Leeds Medical Club, in November, 1873; before the West Riding Medi-

co-Chirurgical Society, at Leeds, in February, 1873; and before the Yorkshire branch of the British Medical Association at a meeting at Scarborough, in November, 1874. The *Lancet* article gave no details of Mr. Teale's mode of procedure, but was rather occupied by his claims to the originality of the idea; and none of the above references, from which I could hope to get full details or even a more definite account, were then accessible to me, but as I was at that time much occupied in investigating the analgesic effects of rapid breathing in surgery, it occurred to me that such effects would be specially serviceable in this plan of treatment proposed by Mr. Teale, and I made some memoranda in reference to it at the time.

Shortly afterwards, and within the period of twenty-four hours embraced between the noons of the 21st and the 22d of February, 1876, I was urgently summoned to no less than three different cases of this distressing affection. They were all characteristic, especially as to the distressing nature of the symptoms.

Case 1.—The first was that of a lady, about thirty years of age, residing ten miles from Philadelphia, with whose medical history I had been somewhat familiar from her early childhood. Soon after her having gotten married and so shamefully abused by her husband that her father had to take her home, and obtain a divorce for her, I had to treat her for a severe vaginitis and endometritis. At the outset of this trouble (gonorrhœa), and before I saw her for it, she had had an attack of great irritability of the bladder, followed as she described by a discharge of "black gravel" which gave her relief to the bladder symptoms. At my interview with her, she also stated that she had always suffered very severely in coitus with her husband, and that such acts were constantly followed by bleeding from the vagina and pain at subsequent micturition. On the occasion of my being called to treat her for gonorrhœa, I made careful examinations, both digital and with the speculum, and found both sets of labia much swollen, and the remnants of the hymen excessively tender, so that I had to proceed with great care and gentleness to make the examinations perfectly. I thus detected prolapsus and retroflexion, as well as all the symptoms of vaginitis and endometritis. For these I used douches with the douche bottle and double catheter, and medicated sponge-tents, and had the satisfaction of leaving my patient in a short time restored, or rather freed from these troubles, and I ceased to attend her regularly.

Several months later, (viz., in October, 1875, when I saw her again), she seemed remarkably well and had grown fleshy. She stated however that she had at times some trouble in her menses, and a vaginal examination then revealed slight retroflexion but no induration or hypertrophy of the uterus. For this condition I introduced a whalebone, intra-uterine, stem pessary, which she wore with satisfaction for three months, when it was removed. My next summons was in the afternoon of February 21, 1876, to her country home, where I found her suffering intense agony from inclination and inability to urinate. She then told me that she had been very well, since I had last seen her, up to the last flux of her menses,

which had come on whilst she was away from home travelling for amusement; that the flow was then arrested on its second day by her being exposed to severe cold, and that, since she had suffered much with lumbar pains, headache, constipation, and tenesmus; the last symptom always when at stool. She had also had a great deal of erethism, with itching and burning at the entrance of the vagina, for the relief of which she had always felt compelled to scratch the parts very severely. At this time I found much tympany with tenderness of the abdominal walls, and inability to move without her sufferings being greatly increased. Her bladder was evidently not much distended, and the introduction of the catheter removed not over half an ounce of high-colored urine—which I found free from blood or pus. The use of the catheter was effected without difficulty or delay, but caused the patient to scream with agony. The instrument was held tightly by the contractions of the sphincter, and after its withdrawal the old symptoms were as severe as ever.

An inspection then showed the usual button form of projection of the mucous membrane of the orifice of the urethra to be found in most cases of acute sphincterismus with inflammation of the parts, and I considered the case a very fair one for Teale's treatment. I therefore proposed to the patient, as I had both Atlee's and Ellinger's uterine dilators, as well as a special dilator for the female urethra, in my satchel, to resort to Teale's treatment after I should get her insensible to pain by the rapid breathing. To this she readily consented, as she was still suffering as much as before the catheter had been used, and as she was satisfied that no relief was to be expected from the catheterism alone. Her distress was indeed so great that I directed her to try the rapid breathing before she should attempt moving on the bed. This she did, and at the end of three minutes by the watch she was so relieved of her hyperæsthesia as to allow her to fix herself as I wished, viz: on her left side, close to the edge of the bed, that is, in the ordinary obstetrical position. When this breathing had produced so much *insensibility to pain* that she could only recognize the contact of my fingers whilst I was pinching her with my nails as hard as I could, I proceeded to make a thorough examination, and then attempted to introduce Weisse's urethral dilator; but owing to the fleshy state of the nates, I found it difficult to manipulate with so short an instrument. I therefore substituted for it Ellinger's uterine dilator. This I passed through the whole length of its blades into the bladder, without any difficulty or annoyance, the rapid breathing being steadily kept up all the time. I then slowly effected such dilatation as would allow me to pass my index finger, between the blades, into the bladder, without causing any pain or bleeding.

This operation occupied about fifteen minutes, and during all this time she was free from pain, although, as she said, she knew I was constantly touching her. The dilatation, so effected, was followed by most complete relief, and she had no desire to micturate during the following half hour, whilst I was at the house.

No applications or dressings to the part were ordered, and I left directions simply for care about

her diet and her remaining in bed. The next day I received a letter from her father (who was a physician), saying, "My daughter was restless, and occasionally complained of pain throughout last night, but appears to be considerably better to-day." Since then she has never had any return of her bladder troubles, and her cure was undoubtedly the result of the forced dilatation.

CASE II.—The next case I shall report, was that of a widow lady to whom I was summoned in the city on the morning of February 22, 1876. She had been under my care frequently before, for various troubles, essentially due to prolapsus. This, the prolapsus, was frequently attended by great irritability, and even by catarrh, of the bladder; it had never existed, however, before, to any great extent. This time her sufferings with her bladder were such as to make her look and act like a maniac, and nothing could induce her to try the rapid breathing to lull them. I therefore proceeded to make a digital examination; this showed the uterus healthy and in its natural position, but the bladder, and especially its sphincter, excessively sensitive to the touch. I was now told for the first time, and that by the aid of the memory of her mother, that she had had more or less constantly this irritation—a fact which she had denied to me before—ever since the birth of the first of her six children, in a tedious labor sixteen years before. She further stated that her urine had always, since then, been loaded with what proved to be phosphates.

These conditions having been determined to exist, I proceeded at once to employ Teale's method of dilatation, unaided by any means of producing insensibility. This required much more time than the other case, and occasioned without doubt, most intense sufferings to the patient, she making constant efforts to draw herself away from the instrument. These efforts were nugatory, however, for anticipating them, I had passed the instrument (Ellinger's), without any warning, quickly into the bladder, and had secured it there by means of its catch, well slid down, so that every time an extra effort was made by her, I had but to let go the instrument, and it was not disturbed. In this way I took over twenty minutes by the watch to make a dilatation such as would allow of my passing my index finger into the bladder whilst the dilator was there. I then desisted. There was no bleeding, and the patient expressed herself as entirely relieved of all inclination to be constantly passing her urine; but there was great tenderness along the line of the operation. To remove this, I applied some wet clay to the parts there, and directed its renewal after each attempt at micturition. These attempts were now not at all frequent, and were always attended with a free flow of urine. At the end of three days of this mode of treatment, she was not disturbed at all at night, and had not more than three or four calls to urinate during the day.

A vaginal examination made at the end of the tenth day, during all of which time the earth dressing had been applied, showed that there was no tenderness or thickening along the urethra, or at its orifice. Since then this patient has never had any signs of Sphincterismus.

CASE III.—My third case of sphincterismus, that

is, of those which occurred in the aforesaid period of twenty-four hours (viz., February 21-22, 1876), was that of a robust, healthy-looking lady, thirty-eight years of age, who had been married sixteen years without ever having conceived. She had consulted a prominent gynecologist six years after her marriage, as to the cause of her sterility. He pronounced it due to prolapsus and retroflexion, and, to remedy these difficulties, introduced a Meigs ring pessary. He allowed her to wear this for three years without any vaginal examination. Then, when she complained of her bladder symptoms and desired the removal of the pessary, he, having been all that time in attendance on her, told her for the first time that the instrument ought to have been removed within six months after its insertion. It was then removed, and shortly afterward she ceased to be his patient. Two years later she placed herself under my care for vaginitis and irritability of the bladder which she said had been disturbing her ever since the ring was introduced, or had been worn but a short time, at least. She said that she had ever since then been compelled to pass her urine two or three times during the night, and was always annoyed with the inclination when walking in the street.

The vaginitis then existing (that is, at the time of my first visiting her) was removed by injections and applications per speculum, which instrument revealed indurations and thickenings all around where the ring had been two years before. This was assigned, in my mind, as the cause of the irritability of the bladder, and topical applications were continued until this culminated on the 22d in an intense attack of irritability and of incontinence, which had originated three days before in a tedious shopping expedition. When I saw her this time, she was exhausted with her sufferings of the night before, and was willing to submit to any operation which could give her relief, but was positive against the introduction of any form of insensibility, having been assured by many that she had a fatty heart, which would kill her under such circumstances. I used the Ellinger dilator at once, with the patient reclining on her left side as one in labor. This I did very cautiously, first getting the blades of the instrument into the urethra, then, waiting some minutes on account of the violence of the spasm of the sphincter, I slowly approximated the handles with the same precautions as in the other case, and thus made my dilatation a steady and forced, rather than a rapid one. It occupied me over half an hour. And when I got the dilatation complete I left the instrument in its dilated state in the bladder until all resistance to it had ceased. I then withdrew it after closing its blades, and my patient expressed herself as entirely relieved.

The reason of my caution was to avoid laceration, and in this I was successful. Before leaving the patient, I directed the constant application of clay to the parts, but, on my visit the next day, I found that it had not been used, and that the patient had had some attacks of sphincterismus; these were, however, at more prolonged intervals of time than those immediately preceding the operation. I therefore determined to leave the case without any topical applications, and watch what progress it could

so make. This progress was slow but satisfactory; there were frequent intimations of recurrence of the irritability, but no positive paroxysm, and the single dilatation eventually wrought a dissipation of all the thickening of the tissues there. Frequent vaginal examinations made this very apparent, and proved the dissipation complete in a year's time. This was an exceedingly trying case for Teale's method. The patient had been brought up from childhood amidst all sorts of quackery, and was ready to imagine herself the victim of any malady which the last comer might suggest as explanatory of her sufferings. If, therefore, the operation could not be a rapid one, and performed without suffering, it may be deservedly considered a perfect success. She has now had none of her old trouble for three years.

Since the occurrence of these three cases in one day in my practice, I have been more diligent than before in my inquiries, and have found many cases to treat in the same way, which were analogous, and yet different as to their causes and pathology. Of these cases, I shall now give, as briefly as practicable, the histories of three, which, in contrast with those already given, will show more forcibly the value and extent of application of Teale's proposal.

CASE IV.—The first was the case of a widowed lady, who came under my care last August (1878), for a large fibro-cystic tumor, filling the abdominal cavity to such an extent as to give her a girth at the navel or thirty-eight inches. This tumor had been diagnosed by the late Dr. Washington L. Atlee, two years before, as growing from the broad ligament and body of the uterus, and had been steadily increasing since then. She complained to me of troubles in the bladder early in my attendance on her, but was satisfied, as I was, with the idea that these arose from the pressure of the growth.

Some five or six weeks later, when the tumor had diminished several inches in its circumference, this diminution following the continuous application of earth over the abdomen, the symptoms of irritation of the bladder were more distressing than ever, but these I also naturally attributed to the sinking of the growth in the pelvis as the result of its diminished size, and therefore resorted to essentially palliative means for relief. They failed; the irritation grew worse and worse. I then made a vaginal examination, specially to determine the state of the bladder. Here I found acute sensitiveness, most positive sphincterismus, without any thickening or induration, but with characteristic button-like projection of the mucous membrane of the urethra. This examination was conducted with the patient on her left side, and my mind was quickly made up as to my proper course, which was to induce analgesia without any delay, and then use the dilator. The rapid breathing accomplished its desired result in about seven minutes. I then readily dilated the urethra through its whole length by Ellinger's instrument. There were none of the bladder symptoms remaining when the patient recovered from the breathing—which was instantly on my withdrawing the instrument. The clay was then applied, and continued as a precautionary measure for several days. There has never been any return of the bladder symptoms since the operation, although the

patient's tumor has been steadily decreasing at a rate which has caused an average decrease of two inches per month in her greatest girth during all that time. Her figure and the activity of her movements are now such as to make the fact of her having a tumor scarcely perceptible.

CASE V.—In contrast with this case as to the probability or improbability of action of the tumor on the bladder, I will present here another, that of a married lady, aged 43, still menstruating, who consulted me about troubles in her bladder a year ago. The symptoms of sphincterismus were not at the time distressing, but on examining her abdomen I found a large fatty growth in the right side of the abdominal walls, the handling and moving of which gave her distress. I could hardly span it with the thumb and little finger of either hand. The patient attributed this growth to a blow she had received on the parts some years before, and said that the bladder symptoms developed with it. Under these circumstances I directed the use of the clay to the tumor to effect its dissipation, in hopes that when this was accomplished, the irritation of the bladder would disappear. The result was to dissipate the tumor entirely in the course of four weeks' use of the dressing. The bladder symptoms, however, persisted for some months, until one afternoon I took Prof. Wallace to see the ease as one of cure of a tumor by the earth. Knowing my patient's temperament, I went unexpectedly, but prepared to dilate her urethra. Of this I informed her after the professor had made a full examination as to the tumor.

Unfortunately I could not then induce her to make the proper exertions for the production of analgesia, and had to proceed without it. In the lateral posture I could not, nor could even Prof. Wallace recognize the origin of the urethra by digital exploration. We both even so failed with her in the dorsal decubitus. All that we could perceive, in either way, was a well-defined depression when the urethral orifice should be projecting. The patient's bed was in a very unfavorable position for ocular exploration; we therefore resorted to artificial light, and so detected a point in the depression, into which I succeeded after some effort in passing the point of my Ellinger's instrument. The patient suffered excessively as I slid the instrument into the bladder, and still more so as I attempted to separate its blades. I, however, in spite of all her resistance, effected complete dilatation in fifteen minutes, time, by the watch, and this too without causing any laceration. The earth dressing was directed to be used here, its renewal always to be made after each micturition. She has never had any return of the trouble since the operation, now over two months. She ceased to use the dressing after the fifth day.

In discussing the possible cause of the trouble with my patient recently, she recalled to mind the fact of its first occurrence having followed the birth of her first child, twenty-three years before, and that she had never been able to sleep a whole night since then without being disturbed three or four times to micturate. She also then stated that she had been frequently treated in former times by applications of nitrate of silver to the parts. Hence probably the

conditions we found about the orifice of the urethra.

This case is to be contrasted with Case IV., by the fact that we had the sphincterismus clearly developed, as is most usually the case indeed, by a mechanical cause, and that most positively independent of the existence, or of changes in the growth, of a tumor. The trouble was in both essentially spasmodic, and not associated with thickening.

CASE VI.—The last case which I shall report here this evening was one of the most severe and protracted I have ever met with. The patient was forty-five years of age, and had suffered constantly since the birth of her first child, twenty-three years before, having been obliged to evacuate her bladder as frequently as every half hour, night and day, during all that period of time. She had, when I first saw her, the expression of the most extreme anxiety and despair. She told me that she had been for a long time under treatment with caustic applications, by two prominent members of the profession in our city; also by some in New York and elsewhere; and that the only inducement for her to seek my services was the success I had had with the clay dressing in the case of her friend with whom she was staying. She was excessively nervous and emaciated, as was to be expected in such a patient, and it took me over ten minutes to bring about analgesia by rapid breathing as a necessary preliminary to a thorough examination. This examination demonstrated, as before intimated, the sphincterismus without thickening of the tissues of parts neighboring the urethra, but with well-marked retraction of those parts.

I then introduced the dilator (Ellinger's) and passed its blades completely into the bladder, without disturbing my patient, and then, keeping her still in the same state of insensibility to pain, I soon (in five minutes' time by the watch) dilated them so as to allow of my index finger passing between them into the bladder. Then I withdrew the instrument, and whilst the patient was still breathing rapidly I covered the neck of the bladder and orifice of the urethra with a stiff paste of clay and water. The patient after this was directed by me to discontinue her rapid breathing, and the towel which had been placed over her face to prevent her mind being diverted from the efforts in respiration was removed. To my question now as to her having felt me, she promptly answered, "Yes, everything you did;" to that if I hurt her, she said, "Some," evidently not in a definite manner. In fact, talking further, she admitted that all the sensations, those simply of touch and those which ought to have caused pain, were alike; and that her dread of suffering made her give the affirmative answer to my questions. When she was completely restored to sensibility she was most emphatic in saying "no" to the question if she had any of her old distress.

I left her in bed, with directions that she should be kept quiet and allowed to go to sleep, if possible, without any anodyne. I called in the evening and found my patient in great glee. She had gone to sleep shortly after I left, and had slept soundly for fully an hour. This sleep was so very sound from its outset that her friends in the room soon left her and went down stairs, meaning to return

whenever they should hear her move. When she awoke and found herself alone, and totally free from pain, she cautiously slid out of bed and put herself on the chamber to see if she was perfectly relieved. After sitting there some moments without any of her recent indications of urinating, she arose, and to her great surprise found that her water had passed from her without causing any sensation. Her impulse, as she afterwards stated to her friend, was to jump over the bed for delight. She, however, instead, took hold of the nearest chair and pounded with it with all her might. This brought her friend and all the family running up into the room in the greatest alarm. There they found her standing on the floor with bare feet, and laughing with the greatest satisfaction on account of her utter freedom from pain of any kind. This operation was done on the 12th of November last (1878), and I saw the patient six times during the following ten days, without having occasion to prescribe for her, or even to control her diet. Since then I have heard frequently of her at her home, where all say she is very happy and grateful for the perfect relief she has gotten. I have delighted in the result most heartily, and feel that if I had had no other case of the kind, it alone is one well worthy of being made widely known.

I have entered into full details of the mode of procedure which I have adopted in all of my cases, for the reason as before intimated, that I did not know those of Mr. Teale's method, and do not wish in any way to leave opportunity for improper inferences or to false representations, if any might be made from my paper, of that gentleman's plan. I wish, as the title of my paper shows, to give the fullest credit to Mr. Teale for the idea of this mode of treatment, and as my opening paragraphs indicate, to make known my ignorance of Mr. T.'s plan of procedure. I have operated on all of my cases save one (Case V. of those here reported), with the patient reclining on the left side, a position which I was long ago taught in Dublin to prefer to all others for such operations, even for the purpose of using the female catheter. Its advantages are, not only that the patient is freed from the annoyance of having to face her surgeon, but is prevented from seeing what is going on, and from having her person exposed in the least; and, as can be seen from any accurate anatomical drawing, the orifice of

[Velpéau's plate of a vertical section of the female pelvic organs exhibited.]

the urethra is much more accessible in that position than in any other. It looks back, and enters the tract of the canal at almost a right angle from behind forwards; hence when there has been much retraction provoked by changes of tissue, like those resulting from the frequent use of nitrate of silver, the orifice is most readily entered from behind. The entrance once effected in this manner, by an instrument, the latter can be readily and quickly glided along the passage by simply moving its handle or near extremity forwards in the segment of a circle provided that the curve of the instrument is looking backwards.

This done, with Atlee's dilator, the slightest approximation of its handles secures it in the bladder, as a consequence of the inverted form of a cone

which its blades make; whereas, with Ellinger's instrument, the parallel relations of its blades make it always necessary to have some retaining power like that of a sliding catch to guard against its being displaced. With Weisse's instrument, when it can be readily used, as on a thin patient, the third blade presents a serious objection by pressing forward on the tissues in front of the urethra, if it has been inserted with that blade looking forwards, as is necessary in the lateral decubitus, or backward, in the dorsal position, when it compels the lateral blades to press on those parts. These faults of Weisse's instrument show the advantages to be gained by using the other dilators when inserted from behind, with the curves of their blades looking towards the sacrum; they, on being opened, move under or behind the arch of the pubis, and not only can do no harm by their pressure, but exert pressure at the points and in the directions needed.

After the reading of the preceding paper, Dr. William Goodell said:

I have performed the operation of forcible and rapid dilatation of the urethra some fifty times, at least, and have so often cured by it bladder troubles of long standing that I wish to add my testimony to that of Dr. Hewson as to its efficiency. The female urethra does not possess a true sphincter, but from the meatus urinarius exclusive to the neck of the bladder inclusive, it is surrounded by a network of muscular fibres, which firmly constrict it and act the part of a powerful sphincter. It is the spasmodic or the organic contraction of this broad belt of fibres that makes woman more liable than man to urinary disturbances.

While warmly advocating the operation of rapid dilatation of the urethra, I wish to point out certain risks attending it, to which Dr. Hewson has not adverted. One is incontinence of urine. This result I have not thus far seen in any of my own cases, because I dilate simply to the extent of the girth of my index finger, which is of medium size, and no further. But I have twice met with it in cases operated upon by other physicians, and in each the thumb had been forced in. This experience has led me to think that there is danger in making the dilatation too great. The other risk is that of hemorrhage, either external, from the rent often made in the upper margin of the meatus, or internal—into the bladder—from the rupture of the tense and thin fold of mucous membrane often found at the neck of the bladder. I have several times met with the former, and have been obliged to use styptics. On one occasion I was compelled, in a pregnant woman, to close the rent by a metallic suture, passed deeply in, before I could check the bleeding. I have occasionally met with cases of internal bleeding but, although one of them lasted for three days, I have not found it needful to interfere by styptic injections.

I would further remark that in the selection of cases for dilatation, it is important to distinguish between purely hysterical cases and cases in which there exists a real tonic contraction of the urethral muscular fibres. For while the operation almost always benefits the latter, it will sometimes increase the urinary troubles in the former.

HOSPITAL RECORDS.

THE ORTHOPEDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES, PHILADELPHIA.

Service of S. WELLS, M.D.
Prepared for THE HOSPITAL GAZETTE.

WEAVER'S, VIOLINIST'S, AND IRON PULLER'S PALSIES.

CASE I.—W. B. C., by profession a *violinist*, has been a steady player for twenty years, averaging six hours out of every twenty-four. Patient presented himself for treatment January 27th, 1875, saying that one year before that date he first noticed a spasm of the flexors of the ring and little fingers during an attempt to lift them from the cords of the violin. When playing he had pain in the ulnar region of the arm. Used to play first fiddle; but for a year had been obliged to play second violin.

Sensation and electro muscular contractility remained unimpaired.

He holds neck of violin between the thumb and forefinger, touching the cords with the other fingers. He occasionally experiences a momentary cramp in the fourth and fifth fingers in lifting them off the cords. *Was able to play the piano without any difficulty.*

September 27, 1875.—Trouble still continued in the third finger of the left hand, which hung on his violin string when it should be raised off it. Doubtful of any improvement. Advised galvanization of flexors and extensors, one pole in axilla, the other stroked over the muscles.

CASE II.—W. V., æt. 35 years, a *heater* in a rolling mill, who worked in an iron foundry at Catasauqua, pulling the iron in and out of the furnace.

Patient had been married and had four healthy children. He denied syphilis, and had always enjoyed good health up to the date of his present troubles. He came for treatment on March 25th, 1872, with the statement that after working three successive terms at the furnace and sleeping from seven to nine A. M., he went to a pic-nic. The next day when he woke up he found his hands swollen and stiff. This was on a Friday. He did not resume work until Monday, by which time the swelling of the hands was less marked. He worked steadily for a month, the strength in his hands failing, the grip becoming weak, with a feeling of numbness but no loss of sensation.

During this time his wife died, and he was much distressed. For a month after her death he worked and at the end of that time was obliged to stop. Since then the strength in his hands has steadily failed, commencing in the hands and extending up the arms.

There was some pain in the small of the back, some difficulty in articulating, and also in "hawking." No dyspeptic symptoms. Bowels very irregular. Passed urine but once during the day, and it never dripped away. No blue lines on the gums.

There was absolute loss of power in the deltoids tho' the fibres of the muscles contracted. No power in biceps, and the greatest palsy in the flexors of the fingers and hands. Able to raise wrist, and to pronate and supinate arms. Loss of power in the triceps muscles not so marked as in the others, the

right triceps being stronger than any other arm muscles. Pectoral muscles weak. All the muscles were about equally atrophied, and to a considerable extent.

Sensibility and localization good. Could test the distance of points well.

Some loss of power in uvula apparent. Both right and left arm measured $7\frac{1}{2}$ in. at a point three inches below the elbow.

Electric condition. The secondary induced current one cell, three inches, moved both deltoids, most marked contraction being obtained by placing the positive pole over the brachial plexus, and the negative over the muscle. Electro muscular contractility remained in all the muscles, but was diminished in degree except in the flexors communis digitorum. Electro muscular sensibility existed in both arms.

R. ext. ergot. fl. gtt. XX t. i. d., and potass. iodid. gr. v. t. d., also advised the use of galvanism.

April 2d.—The dose of the medicine was diminished one-half in consequence of its purging him. One week later it was found necessary to discontinue it entirely for the same reason.

April 30th.—After eighteen applications of galvanism there was no improvement, and, returning home, he died about the middle of May.

CASE III.—J. B., aged twenty-six years, a weaver by occupation. His family history has been good; so also has his previous health been. Patient has been a weaver since he was fourteen years of age, using his left hand as much as the right in weaving. When fifteen years old, he began to be troubled with spasmodic pronation of the left hand. He stopped work for a few weeks, and upon returning was not troubled with it again until he was twenty-one years of age, when it reappeared, and has continued permanent ever since, except when he could stop weaving temporarily.

The spasm consists of a sudden pronation of the left hand with a general tremor of the arm caused by any voluntary exertion—a large irregular tremor. Any movement of the hand with the arm flexed is more difficult to perform than with the arm extended. Patient is unable to comb his hair *backwards* with the left arm.

He was naturally left handed, and when he first presented himself for treatment at the clinic, the dynamometer registered with the left hand 135, right 150.

Sensation was unimpaired in both hands. There was no pain in the back of the neck; but a "bruised" feeling in left arm after exertion. Advised change of occupation and galvanism three times weekly to arm.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

JNO. A. WYETH, M.D.

WOUNDS OF THE HEART WITH OR WITHOUT CORRESPONDING EXTERNAL LESIONS.

M. Terrillon, in *Progrès Medical* March, 22 and April 5, 1879, contributes some interesting facts, on this subject.

CASE I.—(Reported by Prescott Hewitt in 1847.) A child twelve years old fell from a height and died four hours afterwards. At the autopsy there was no wound of the thoracic walls. The pericardium was intact. Upon the anterior superior wall of the ventricles at a point corresponding to the inter-ventricular septum, an inch and a half below the mouth of the aorta, there was found an ecchymosis about one inch in diameter. The blood had exuded underneath the endocardium. This ecchymosis corresponded to a rupture of the cardiac walls which had involved the septum ventriculorum and established a communication between the two ventricles. There were other and smaller ecchymotic spots visible from the inner surface of the heart. In the left ventricle two of the columnæ corneæ were ruptured.

CASE II.—(Reported by Bentley Todd). Patient, male, æt. 41. Three years previously he had received a stab with a dirk just beneath the left nipple which was followed by a profuse hemorrhage. Ever since the accident he had suffered from symptoms of cardiac derangement which eventually caused death. The heart was much hypertrophied and dilated. The valves of the left side and the pulmonic valves were intact. The anterior segment of the tricuspid valve was floating loosely, the *chordæ tendineæ* being all divided. The remains of these were hanging like fringe on the free edge of the valve. The corresponding *musculi papillares* were atrophied showing that the rupture of the *chordæ tendineæ* had been of long standing and had most probably occurred at the time of the accident, three years previous to death. There was no cicatrix in the walls of the heart.

CASE III.—A young man, æt. 21, received a violent kick from a horse. The hoof struck him in the chest; he fell over backwards, got up, rearranged his hat, walked several paces, and fell dead. There was no abrasion of the skin. The sternum was fractured transversely, about four inches above the xiphoid appendix. The pericardium was filled with clotted blood and yellow serum. A rupture a half inch in length was found upon the anterior aspect of the right auricle; also a fissure through the fossa ovalis and a small rent at the right auriculo-ventricular junction.

CASE IV.—A man, æt. 48, took a metallic tube 2 cm. in diameter, soldered one end of it, loaded it with powder and projectiles, consisting chiefly of small bits of iron, placed the muzzle against his left breast, and holding the other extremity over a flame, succeeded in exploding the charge. The tube was burst by the explosion, but a piece of metal was driven into the thorax. This was 5 o'clock in the morning. An hour and a half later he entered the hospital, and walked to his bed notwithstanding the extreme difficulty of breathing. At the anterior extremity of the seventh rib was seen a hole large enough to admit the thumb, and a little above this another and smaller penetrating wound. The integument is powder burnt immediately around the wound. A small quantity of blood oozed out of these wounds with the expiratory effort. The pulse was feeble and frequent. Patient died at 5 o'clock P.M., just twelve hours after the receipt of the wound.

Autopsy.—There was a complete hernia of the stomach through a wound of the diaphragm. The

stomach was protruded principally into the left pleural cavity. On its upper surface was a bruised spot, but there was no perforation. The base of the left lung was completely traversed by a wound, and there was abundant bloody infiltration of the neighboring lung tissue. The pleural cavity contained blood and air. On the anterior wall of the left ventricle, toward the apex, is an ecchymotic patch, but no rupture of heart-substance. The interstitial extravasation and bloody infiltration is marked, but there can be seen no solution of continuity in the muscular substance. Within the left ventricle there was found a blood-clot as large as the thumb and adhering at the apex of the ventricle. Moreover there was a rupture of several of the *chordæ tendineæ* of the mitral valve.

The writer concludes that it is evident in this case that the contusion of the heart was not the result of direct violence from the missile which had entered the thorax to the outer side of the apex of the heart. *Moreover the pericardium was not wounded.* The contusion must then have been caused by pressure of the thoracic wall driven in at the instant of the shooting by the discharge. This pressure must also have caused all the other changes noticed in the heart.

CASE V. (Riche). A man shot himself in the breast, near the heart, with a revolver. The lung was perforated. The heart beat with its usual regularity and force. Death ensued in a few hours from hemorrhage.

The autopsy showed a fracture of the rib, a perforation of the pericardium near the apex of the heart, a slight contusion of this organ, and a wound of the pleura and lung. Around the contusion in the wall of the ventricle was a wide area of extravasation and infiltration.

En résumé, Terrillon says that the contusions of the heart are ordinarily due to three causes.

1. Direct injuries, with more or less extensive solution of continuity, causing death rapidly.

2. Ecchymoses and contusions of the cardiac walls, due to pressure, which do not seem to exert much immediate influence over the action of this organ.

3. An internal rupture, as of a valve, chordæ tendineæ, columnæ corneæ, or the septa.

[In this connection the following cases may not be devoid of interest. Mr. Gay (Holmes' Surgery, vol. 2, p. 606,) exhibited the heart of a man who had lived nine days after receiving a punctured wound. There was reason to believe that the wound did not extend entirely through the wall of the left ventricle, but that the force of the heart's action had ruptured this already weakened spot.

Breschet reports a man who was crushed between the end of a wagon tongue and a wall. The sternum, fourth, fifth and sixth ribs were fractured, and there was laceration of the pericardium with lesion of the left ventricle to the depth of one-third of its substance. He lived twelve days. There was no fluid in the pericardium, but a large quantity of blood in the left pleura. Ferrus relates the case of a man living twenty days after having a skewer (a long iron pin) driven through the heart from side to side. David & Steward found a piece of wood three

inches long in the right heart of a boy who lived five weeks after the accident.

Dr. Babington reports the case of a marine who fell upon his bayonet, which entered the abdomen, transfixed the sigmoid flexure of the colon, stomach, left lobe of the liver, diaphragm, pericardium and traversed the heart near the tricuspid valve, and passing through the lung projected from the thorax between the second and third ribs on the right side.

He survived twenty-four hours.

Holmes says: "The general idea is that wounds of the heart are fatal and even now recovery is considered doubtful by many. But of 452 cases (recorded by Fischer) there were seventy-two recoveries. In thirty-six cases the diagnosis was proved by post-mortem examination. In the other thirty six the diagnosis was made from symptoms alone.—W.]

ERYSIPELAS TREATED BY SUBCUTANEOUS INJECTIONS OF CARBOLIC ACID.—H. HÜTER.

17 cases treated by this method are reported. H. argues that the spread of the disease is by means of *bacteria*, and insists that close scrutiny is demanded in order to detect the disease in its incipency when it can best be cured. Injections of a 3 per cent. solution of carbolic acid (in water) are used, and the erysipelatous region is surrounded by a ring of these, just at the line between healthy and unhealthy tissue. The wound is first thoroughly disinfected by carbolic dressing, and after the injections these are continued; 2 to 5 repetitions of an injection are sufficient.—*Ibid*, p. 71.

CHLORAL HYDRATE IN THE TREATMENT OF ECLAMPSIA.—LONDENEAU.

The patient was seized with eclampsia as the head of the child was descending to the inferior strait. The forceps were applied and the delivery accomplished without difficulty. In a little while a second attack supervened and a large dose of chloral was given. The convulsions did not recur. There had been a large quantity of albumen noticed in the urine before confinement. Under milk diet this rapidly disappeared. *Londeneau* has used this remedy in a great number of cases and with such success that he commends it highly to the profession.

Choupe publishes thirty-six cases treated by chloral. In sixteen of these, this remedy was associated with other remedies. In twelve cases, where no medicine except chloral was used, all recovered.—*France Medicale*, April 1879, p. 233.

BAZY—FIBRINOUS DEPOSIT IN THE SYNOVIAL BURSA BETWEEN THE GREAT TROCHANTER AND THE GLUTEUS MAXIMUS.

Patient, male, an Arab, æt. 32, admitted to the hospital on account of dysentery, contracted in the Balkan campaign. There were two tumors, each about the size of a chestnut, developed in the right trochanteric region, of about two months standing. They were movable under the skin, but both moved as if firmly united. There was no inflammation although there was a slight and ill defined sense of pain on pressure. After removal these growths presented a whitish color, and were of firm consistency.

Microscopic examination was impossible under the circumstances, but from their general appearance they were thought to be fibrous. The patient recovered promptly.—*France Medicale*, March 19, 1879.

CIRRHOSIS OF THE LIVER IN A CHILD SIX YEARS OF AGE—PETEL.

A month before admission, patient was seized with a fever, the nature of which was not determined and during the convalescence from this attack about 20 days after the seizure, the symptoms of dropsy were recognized. Œdema of the lower extremities and ascites. No icterus—no albuminuria. Patient died on fifth week after admission. The abdomen had been tapped three times. *Autopsy*—Liver—Shape normal, but surface granular. Weight 660 gm.—old adhesions with diaphragm; color, dirty brown, lobules are separated by rings of white fibrous tissue. Such is the abnormal development of these that they are clearly visible to the naked eye. Evidently a case of annular cirrhosis; *spleen* enlarged, soft, capsules present some whitish patches; lung and kidneys sound.

This form of disease is rare with children. *Rilliet & Barthez* note only 4 cases, *Frerichs* one, between 10–20 years. *M. Render*, says only 6 cases can be found recorded under 8 years of age.—*Progrès Medical*, Jan. 1879, p. 66.

ANEURISM OF THE FIRST PORTION OF THE AORTA, LOCATED IN THE VENTRICULAR WALL, BUT NOT COMMUNICATING WITH THE CAVITY OF THE HEART.

Patient, male, æt. 58.—Had been healthy until eleven years ago; had an attack of pleurisy, from which he soon recovered, and had not been again sick until within the last three months. At this time he noticed some disturbance and uneasiness in the region of the heart. His family history was exceptionally good, and he had never had rheumatism. On examination, the heart-beats are irregular. An abnormal murmur, "*bruit de souffle*," is heard with difficulty at the second sound near the base of the heart. Respiration difficult, face cyanotic; mucous rales; no albuminuria. The dyspnoea and pain in precordial region increased, and death ensued eighteen days after entering the hospital.

Autopsy.—Heart enlarged and dilated; its cavities filled with blackish clots; mitral valve normal; arch of aorta dilated and atheromatous and paved with calcareous laminae; semilunar valves sound, but insufficient owing to dilatation of the aorta. Just below the sigmoid valves there is an aneurismal cavity two centimetres in depth. The opening into the sac is situated outside of and in front of the two coronary arteries, and measures $2\frac{1}{2}$ cm. long by $1\frac{1}{2}$ broad. The base of the aneurism rests upon the interventricular septum, and does not communicate with the cavities of the heart. The walls of this sac are carpeted with a yellowish membrane resembling somewhat the lining of the aorta; its cavity is filled with fibrinous clots. The aneurism was not recognized during life. The other viscera were normal.—*Progress Medical*, January 18, 1879, p. 44.

THE HOSPITAL GAZETTE,

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EDITORIAL.

COUNTER-PRESCRIBING.

When we entered upon the crusade against the unjustifiable performances of prescribing druggists, we were fully sensible of our peril, anticipated their anger and willingly braved its immediate consequences, knowing that the violence of their passion would soon become as nothing. No reform ever had an unopposed beginning, and we counted upon no deviation of the general practice in our behalf; indeed, for some reasons we courted, by the extravagance of our assertion of the truth, an open conflict with these fellows who disgrace pharmacy, or with some of their pretended friends who flatter them for gain. The first, conscience-smitten, quietly acknowledged their error, and exerted themselves to pursue a more honorable course; the latter have proven equal to their self-imposed sycophantic duty, and assailed us in the dark. We were gratified with both results, the improvement in the compounding of prescriptions, and the unmasking of the sycophants; the drug profession becomes more honorable, and the medical profession discovers some sources that bring it into disrepute. It would be impolitic for us to enter into details concerning the latter, just now; but we shall not be charged with neglect in the matter.

We are proud to have the outspoken support of the choice contemporaries throughout the country, in this crusade. The ablest journals, whose efforts are wholly devoted to the advancement of the profession, because their interests are entirely professional, have been prompt to identify themselves with the movement for the separation of the two professions. Conscious of being in the right, so far as both professions were concerned, and in respect of public

good, the conviction of duty could not be smothered, and we have had public and private encouragement from the professional journals. The burden is a heavy one, but the GAZETTE will bear its portion willingly, while thus applauded, for the reward will justify the time and exertion.

We report that there is a decided improvement in the dispensing business; patients soliciting prescriptions from druggists are very frequently referred to physicians. Some of these druggists were of the prescribing order formerly. We are rejoiced to have these prodigals return after their wandering in foreign lands, and believe in having the fatted calf slaughtered, for their benefit, after those who have always been faithful have been satisfied; everybody according to merit is an excellent motto, and no preferment for late converts, will test the reality of their professions. The unfolding of the miserable career of prescribing druggists will drive some from fear to reform, but a lull in the agitation would send them back to their old ways. Genuine denunciation of the double-headed business upon principle is what is demanded to accomplish effective reformation. A little extravagance of invective will assist materially, and the period necessary for the task will be considerably lessened.

We report, farther, that pharmaceutical associations, which had not expressed themselves in the matter, are now entertaining propositions for proving themselves honorable. Pharmacy, no less than medicine, recognizes this fact, that the pharmacist who prescribes is unreliable in all of his actions. The man who gains a few pennies by thrusting himself into the place of medical adviser is not to be trusted behind the prescription desk. This brings us to notice the communication in this issue of the GAZETTE concerning the *substituting peculiarity* of some enterprising druggists. The practice of using an article on hand in the place of one directed by the physician is of the same species, and is resorted to generally by the mongrels. We have frequently heard of such, and recall now a substitution of a worthless compound for Squibb's Fluid Extract of Ergot by a greedy druggist, and a protracted illness resulting in consequence. The fact being proven, a suit for damages was prevented by compromise. This substituting practice *must be stopped*.

All these irregularities must cease before there will be a proper feeling of security in venturing upon the threshold of a drug establishment. Medical skill must be protected from dispensing assumption and greed or the public will lose confidence in the medical and pharmaceutical profession.

The present agitation is but preparing the way for reform. Mankind listens carelessly to arguments upon general topics, especially when sugges-

tive of change in the established order of things. He listens, though, and, if reason persists in her speech, absorbs the truth at last. Even then, though his judgment is convinced, and present error is distinct to his mental vision, from truth, he hardly ventures to acknowledge that he is convinced, and defers practical acknowledgment, postpones acting upon the belief, until a spark drops that arouses everybody else. The spark will drop that will arouse the world to a realization of the truth that there are men selling drugs who, entirely unprepared for such a work, also prescribe medicines, death-producing instrumentalities to sufferers. Such a truth cannot, should not, be hidden, whatever pecuniary interests may be attacked; dollars never balance lives. That spark will drop when the next victim of these aspiring druggists is carried to his grave. From that spark, with the fuel which the present agitation has provided, a conflagration will ensue that will consume the counter prescribing, substituting druggist and his golden idols. Their doom is not far distant.

SELECTIONS FROM JOURNALS.

POST-MORTEM DELIVERY PER VIAS NATURALES.

Dr. A. Thevenot (*Ann. de Gynec.*, Oct., Nov., and Dec., 1878). reviews with great care the comparative merits of post-mortem delivery by the Cæsarean operation and by extraction per vias naturales, which latter he calls the Italian method, since what little repute it has thus far obtained is chiefly due to the labors of Rizzolli. Five cases are quoted in which post-mortem delivery was accomplished by version. Two of the children were born alive, and continued to live; the third lived seven hours; the fourth only gave a few signs of life; the fifth probably died during the operation. The author considers that if a large number of cases should furnish results proportionate to these, nothing could speak more forcibly in favor of the operation. It cannot be denied that post-mortem extraction may present difficulties leading to such loss of time as to involve serious danger to the child. This objection, however, is to a great extent counterbalanced by the promptness with which the proceeding may be undertaken at the very instant of death, or even during the agony, whereas the Cæsarean operation involves hesitation and delay. In regard to the chances of saving the child by the Cæsarean operation performed after the mother's death, the author first quotes Breslau's conclusions from experiments performed on animals, to the effect that (1) when the mother's death has been sudden and violent, there can be no doubt that the human fœtus, as well as those of animals, survives the mother; (2) we may admit that this survival is longer in the human than in other species; (3) the Cæsarean operation is not likely to furnish a living child unless done within fifteen, or at most twenty minutes after death; (4)

if the mother has died of some blood disease, such as cholera, typhus, puerperal fever (during pregnancy or labor) scarlet fever or smallpox, we cannot hope to save the child, because the conditions necessary to its existence have not been wiped out at a blow but gradually destroyed. The same is true in cases of poisoning by substances, such as hydrocyanic acid and the like, which cause a very rapid decomposition of the blood; chloroform, which does not appear to enter in substance into the child's circulation, seems to constitute an exception to this rule. Discarding as fabulous the old reports upon the proportion of children saved by post-mortem Cæsarean section, we find that those reported during the present century show only two successful cases in a hundred attempts. If we choose the Cæsarean operation, we must first ask ourselves if the mother be really dead, if we are not about to open a living woman—a doubt which has stayed the hand of more than one physician. Moreover, the operation is such a grave one in itself, that no one would think of doing it without the consent of the family, and the family often hesitate, sometimes refuse, whence an almost unavoidable delay. Brief, too as may be the necessary preparations, they demand a few instants, for it should be done as carefully as if the woman were living. Several very striking cases are given in which death of the mother was only apparent. Apparent death is less rare in women than in men, and least of all during gestation. In one of the cases (by d'Outrepoint), the woman recovered consciousness at the very moment that the Cæsarean operation was about to be begun; in two (Peu and Reinhardt), this occurred at the instant that the skin was cut; in two (Budin and Sédillot), consciousness was not recovered until the sutures were being inserted after the operation—both women recovered; in one (Trinchinetti), a per saltum hemorrhage from the arteries of the incised uterus converted apparent into real death; and in one (Baudelocque), delivery was accomplished per vias naturales after the surgeon had opened the uterus—but the woman did not recover. It can scarcely be denied that in the present state of science, the physician can distinguish actual from apparent death but the necessary investigation takes time—time which the accoucheur cannot devote to it, for the child's safety demands instant decision. Upon one sign alone can he depend—the absence of the physiological heart-sounds; but Peu, Rigaudeaux, d'Outrepoint, and Talinucci found no heart-beats, and Otterbourg explicitly states that auscultation of the chest gave only negative signs. Even admitting Bouchut's opinion that a heart which has been inaudible for twenty minutes cannot resume its functions—the child may die in one-tenth of this time. The harrowing circumstances of such a case, too, may naturally hinder the auscultator from recognising a few very slow and very feeble heart-beats. It is well, therefore, to treat a woman who dies during advanced pregnancy as if she were only apparently dead. Especially does this hold good in cases of eclampsia. In eight out of seventeen cases of apparent death quoted, the cause of the condition is given, and in six of them it was convulsions. As a rule, a grave disease, an accident, or a profound

emotion provokes labor. At the moment of death, especially if it have been slow, it is rare, after the fifth month, that the cervix is not for the most part effaced, and often dilatation has begun. The operation of artificial delivery is, therefore, seldom difficult. After sufficient dilatation of the os uteri with the fingers, aided, if necessary, by a dilating forceps or by slight incisions, the choice of the method of delivery lies between version and the forceps—a question to be settled on general principles.

In addition to post-mortem delivery, the article deals with the matter of inducing and hastening labour during the death agony. Fifteen cases are quoted in which this practice was followed. Thirteen children were born alive, six of whom survived, and seven lived only a very short time. The two that were still-born seemed to have been dead for several days. Of the living children, one was expelled spontaneously after the induction of labour by uterine douches; twelve others were extracted after artificial dilatation of the cervix—eight by version, and four with the forceps, of whom four and two respectively survived, of the six children who survived, four were born of phthisical women; one of a woman attacked with cerebral hemorrhage, and one of a woman affected with a chronic tumor and with hydramnios. Of the seven children who were born alive, but died within a week, four were born of women with cerebral apoplexy, one of a woman with Bright's disease, one of a mother attacked with a bronchial and intestinal disease, and one of a patient with sacro-coxalgia, who was dying of hectic fever. Inasmuch as the temperature of the foetus is a higher degree than that of the mother, in diseases accompanied by a very high temperature, there is great risk that the child will perish rapidly, and our action should, therefore, be prompt in such cases. The same is true, according to Esterle, in cholera, phthisis, hemorrhage, the acute exanthemata, cerebral inflammation, eclampsia, cancer, syphilis, and lead poisoning. The operation is to be recommended even in the interest of the mother, for not only does it seem not to shorten her life, but it almost always ameliorates her condition, often prolongs life, and in some instances has been followed by recovery. In all cases subjected to autopsy the lesions of the genital canal have been found trifling—nothing more than slight lacerations of the cervix; hemorrhage has not been noted in any of the cases, and the uterus has always been found normally contracted. The time to interfere is when the foetal heart-sounds begin to flag, and delivery should be slow or rapid according to the state of mother and child. The remainder of the article deals chiefly with medico-legal questions.

—*American Journal of Obstetrics*, April, 1879.

DEATH FROM THE INJECTION OF THE PERCHLORIDE OF IRON WITHIN THE UTERUS

At a late meeting of the Obstetrical Society of London (*Med. Times and Gaz.*, April 5, 1879), Dr. Cory showed the uterus and appendages of a woman aged forty, who died in St. Thomas's Hospital. She had been admitted on account of uterine hemorrhage, from which she had suffered for ten weeks

since the expulsion of a vesicular mole. A fortnight after admission she had such a severe attack of bleeding that the resident accoucheur injected by means of a Higginson's syringe, a solution of perchloride of iron through a long tube which entered the uterus through a considerably dilated cervix. The woman became suddenly collapsed, and died almost before the tube could be removed. At the post-mortem examination a small quantity of darkish fluid was found in the recto-vaginal pouch; this contained a large amount of iron. A portion of vesicular mole still remained attached to the uterine wall. The fluid appeared to have entered the peritoneal cavity through the left Fallopian tube.

Dr. Braxton Hicks remarked that probably the astringent action of the injection had caused the os uteri and the cervix to contract on the pipe, preventing the exit of a portion of the solution; this being so, the patency of the cervical canal cannot be relied on alone.

Dr. Barnes called attention to a mode he had before brought under the notice of the Society, of applying perchloride of iron to cases like this by swabbing, or by using a tube perforated at the end containing sponges saturated with the styptic solution, which oozed out under the pressure of a piston. In Dr. Cory's case there was evidence of shock. That the mere contact of iron solution with the peritoneum was not necessarily fatal or dangerous, was certain. He had on more than one occasion swabbed large surfaces of the peritoneum to restrain hemorrhage from adhesions during ovariectomy, the patients recovering.

Dr. John Brunton suggested the use of a canula for injecting, made after the manner of a double male catheter in common use, thereby permitting the solution to escape.

Dr. Aveling said that such an apparatus would be useless, as the clots would stop up the outlet.

Dr. Edis was of the same opinion, and said that an instrument of this kind had been tried.—*Mon. Abstract*.

REMOVAL OF AN INVERTED UTERUS BY THE ELASTIC LIGATURE.

M. Chauvel related the following case to the Société de Chirurgie (*L'Union Méd.*, May 1): A woman, aged 18, entered the hospital of Orleansville, Algeria, having been delivered of her first child seven or eight months previously. Great force was used in removing the placenta, and an inversion of the uterus was recognized soon after, but, after some ineffectual attempts at reduction had been made, the case was left to itself. Painful and abundant hemorrhage occurred at each menstrual period, and was reproduced by the slightest efforts. The patient was very anæmic, in a good deal of pain, and quite unable to undertake any work. A careful examination having been made, it was ascertained that a partial inversion was present, constituting a tumour the size of a medium orange, with a broad pedicle. All attempts at reduction, or support by means of a Gariel pessary, only inducing debilitating hemorrhages, an operation was, at the earnest request of the patient, determined on. On January 7, M. Chauvel, having assured himself of the continuity of the pedicle of the tumour with the circu-

lar projection formed by the lips of the cervix, passed the metallic noose of a *serre-nœud* around the pedicle, making sufficient constriction to arrest the oozing of blood from the surface of the uterus. Protecting the neighboring parts with slips of cardboard, he next traced, by means of a cautery heated to a dull red, a furrow some millimetres in depth just below the metallic noose. In this furrow was placed the elastic ligature, formed of a caoutchouc drainage-tube, about four millimetres in diameter, the ends of which, after sufficient constriction had been made, were secured by a waxed thread. The *serre-nœud* was then removed, not a drop of blood having been lost during the operation. On January 16 the tumor came away, and the patient was discharged at the end of the month. She is now able to undertake the hardest work without either pain or fatigue.—*Med. Times and Gazette*, May 10, 1879.

SALICYLIC COTTON, BENZOIC COTTON, AND LIQUOR ALUMINÆ ACETICÆ AS ANTISEPTICS.

To prepare salicylic cotton (five per cent.), Paul Bruns directs (*Pharm. Centralblatt*) the saturation of 100 parts of cotton with 400 parts of a solution in alcohol of salicylic acid five parts, and castor oil two parts (or castor oil and colophony each one part). In a precisely similar manner the benzoic cotton is prepared, substituting benzoic for salicylic acid. The amount of salicylic or benzoic acid may be increased up to ten per cent., the quantity of castor oil being also correspondingly increased. A solution of acetate of alumina is recommended by the author as superior to thymol, or carbolic, salicylic, or benzoic acid for disinfecting purposes, for dressing wounds, and for permanent antiseptic irrigation. He prepares the solution by dissolving in 500 parts of water 150 parts of alum, and mixing this with a solution in 500 parts in water, of 240 parts of crystalized lead acetate, filtering, and adding water sufficient to make the filtrate measure 2000 parts. This solution, which contains three per cent. of alumina acetate, he frequently dilutes for use with from three to six times its bulk of water.—*London Med. Record*, April 15, 1879.

WATERPROOF PAPER.

Dr. W. W. Keen, surgeon to St. Mary's Hospital, Philadelphia, describes (*Med. and Surg. Reporter*, April 19, 1879) some experiments which he has recently made with a waterproof paper, manufactured at his suggestion by Messrs. Seabury and Johnson, of New York, out of a combination of rubber and paraffine, with a view to its use as a substitute for oiled silk and similar articles. Dr. Keen finds that the advantages of waterproof paper are :

1. It is impermeable to water for seventy-two hours, at the least, even after being repeatedly creased and crumpled.
2. It is impermeable to air in similar conditions.
3. It does not absorb water or discharges.
4. It may be used with the hottest dressings that can be borne.
5. It is flexible, and yet strong enough for all ordinary wear, especially as it will only be used once.

6. Its cost is many times less than that of other similar dressings.—*Monthly Abstract*.

TRAUMATIC MENINGITIS TREATED BY COLD DOUCHE.

At a late meeting of the Clinical Society of London (*Lancet*, April 5, 1879), Mr. Keetley read notes of a case of severe traumatic meningitis, treated in the stage of coma by cold douche for two hours and a half. The patient was a groom, aged thirty, who was thrown from his horse into a ditch, alighting on his head. There had been a short period of insensibility, but on admission to the hospital he was conscious and irritable. The accident had happened at 5 P. M. Thirteen hours after, having passed a good night, he was seized with a convulsive attack, confined to the left side. During the day he had several similar seizures, in which his eyes were strongly turned to the left; in the intervals he vomited occasionally. On the third day he remained in much the same condition, but on the fourth the right side was affected; and after the attack this side was found to be paralyzed. Towards evening he improved considerably, and on the following day it was noted that his face was heavy, his pupils contracted, and he resembled a patient suffering from opium-poisoning; the temperature was 100°. On the sixth day the coma was increased; temperature 100°, pulse 120. The cold douche was applied to the head for two hours and a half, when the temperature was 99°, pulse 70; his face became rather blue; he could answer questions, but had a fatuous expression, and his answers were often childish. After this time he steadily improved, and ultimately recovered. A fracture of the posterior fossa was diagnosed, extending to the base of the skull; the severity of the injury and the acuteness of the meningitis appearing to point to such a condition. The epileptic seizures at first appeared to point to an injury of the dura mater over the seat of violence, and the latter attacks on the opposite side to an extension of the inflammation to the meninges of the other hemisphere. There was no difficulty in regulating the time during which the application of the douche was beneficial. The lividity was only noticed after more than two hours of this course of treatment. It should be added that he had previously been treated by an ice-bag to the head and the administration of aperients.

Dr. Sturge said it was rare for epileptiform attacks after being present on one side, to involve the other and remain confined to it; but he had lately seen such a case. A woman fell downstairs, striking her head and was brought to the hospital in a semi-comatose state. In two or three days she had epileptiform convulsions confined to the left side, the temperature rising to 106° in each fit. The convulsions recurred every half hour, appeared on the right side, and after a time became confined to the right arm and side of face. After a large number of fits she began to recover power and to talk; and was progressing favorably. The convulsions thus subsided first on the side of the body on which they first appeared.

Mr. Godlee thought the ice-bag would be quite as efficacious as the cold douche, and he had seen a case where, after two days' application of ice, the

fits ceased. In another case of convulsions after injury—convulsions which began on one side and then affected the other—arachnoid hemorrhage, and not meningitis, was found after death.

CORRESPONDENCE.

COUNTER-PRESCRIBING.

To the Editor of the HOSPITAL GAZETTE:

DEAR SIR.—Your editorial on Counter Prescribing in the number of May 3d, of the GAZETTE, is highly commendable, and is a step in the right direction. It remains now for the physicians to unite in denouncing such prescribing druggists as come to their notice. Let them give the names openly to the professional public through the columns of this journal (which is no doubt open to such communications), that we may avoid them in future. After the name of the druggist has been published, give him a chance to explain or answer the charge if he can. Another thing which should be mentioned in this connection, is the alteration of prescriptions by druggists, or substituting preparations which they have, instead of obtaining what is ordered.

I will take the initiative. A woman brought a child to me, who had convulsive motions of her arms, stating that Mr. Ernst Molwitz, the druggist, corner 54th st. and 6th avenue, had been treating her for the past two weeks for St. Vitus's dance, but he had given her no relief. Judging from the mother's description of the medicine, it was a preparation containing Bromide of Potassium. Upon further questioning, it was ascertained that the same druggist had been in the habit, for the past three or four years, of treating any of her children when sick. This child proved to have worms, which were, no doubt, the cause of her nervous symptoms.

On one occasion I prescribed Kress' Acidulated Liquid Pepsin. The prescription was taken to Molwitz, who dispensed a different preparation. When it was returned to him and he was told of his mistake he procured and dispensed the proper preparation.

Let other physicians follow this example and we will soon put a stop to this.

A. H. G.

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week, ointments. The abbreviations used are O. D. P. (Out-Door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum).

OINTMENTS.

182. <i>Unguentum Acidi Boracici</i>	
R Acidi Boracici pulv.	parts 1
Cera Alba.	" 1
Olei Amygdal. expr.	partes 2
Paraffini.	" 2

Rub the almond oil with the boracic acid to a smooth mass in a warm mortar; then add the melted wax and paraffin, and triturate until cold.—Dr. Lister, Edinb.

183. *Ung. Acidi Chrysophanic.*

R Acidi Chrysophanici.	gr. 20
Oleo-Paraffini (Vaseline).	" 100

Melt the vaseline on a water-bath, add the acid, stir and heat for about ten minutes; then strain quickly through muslin into a capsule standing on ice, and stir briskly until cold.

184. *Ung. Icthyol.*

(PILE OINTMENT.)

R Cerae Flavæ.	part 8
Resinæ.	" 4
Adipis.	" 12
Ol. Sassafras.	" 2

Melt the wax, resin and lard together; when the mixture shows signs of stiffening add the oil of sassafras, and stir until cold.

185. *Unguentum Ararobæ*

(GOA-OINTMENT.)

R Pulv. Ararobæ (Goa-Powder). gr. 50 to 200	
Oleo-Paraffini (Vaseline).	gr. 500

Melt the vaseline on a water-bath, add the goa-powder, stir and heat for about ten minutes; then strain quickly into a capsule standing on ice, and stir briskly until cold.

186. *Ung. Diachylon.*

R Empl. Plumbi.	
Oleo-Paraffini (Vaseline).	aa 3 1

Melt the lead-plaster together with the vaseline; then stir them in a warm mortar continually until cool.—Dr. Piffard.

187. *Ung. Diachylon Hebra.*

R Emplast. Plumbi.	5
Olei Olivæ.	fl. ounces 4
" Lavandulæ.	fl. ounces 1

Melt the lead-plaster and oil together at a gentle heat; then stir until the mixture begins to stiffen, and incorporate with it the oil of lavender.

188. *Ung. Hydrarg. Ammoniati.*

R Hydrarg. Ammoniati.	gr. 40
Oleo-Paraffini (Vaseline).	3 1

Mix.

189. *Ung. Hydrarg. Oxidi Rubri.*

R Hydrarg. Oxid. Rubri.	gr. 60
Oleo-Paraffini (Vaseline).	3 1

Mix.

190. *Ung. Hydr. Ox. Rub. c. Plumbo* (O. D. P.)

R Hydrarg. Oxidi Rubri.	
Plumbi Acetat.	aa gr. 8
Cerati.	" 1

Mix.—Dr. McKay.

191. *Ung. Picis Alkalinum* (O. D. P.)

R Liquoris Picis Alkalini (see No. 122).	fl. ounces 1
Cerati.	" 1

Mix.

192. *Unguentum "White"* (O. D. P.)

R Potassii Iodidi.	" 2
Ung. Stramonii.	3 1

Mix.

193. *Ung. Zinci Oxid. et Hydrarg.* (O. D. P.)

R Ung. Hydrarg. Nitrat.	3 1 1/2
" Acidi Carbol.	1/2
" Zinci Oxidi.	3 1

Mix.

OBITUARY.

DR. F. F. MAURY.

Dr. F. F. Maury died at his residence in Philadelphia, June 4th, of pulmonary disease, in the thirty-ninth year of his age.

The deceased was born in Danville, Ky., August 4th, 1840, and was educated at Centre College, in that city. His first course of lectures was attended at the medical department of the University of Virginia, and afterward he attended a course at the Jefferson Medical College of Philadelphia, where he graduated in 1862. He was considered one of the most skillful surgeons in Philadelphia. Among the remarkable operations performed by him was a successful amputation at the hip-joint. He performed the first operation for gastrotomy in this country. He edited the *Photographic Bureau of Medicine and Surgery* for two years and published a number of reports of medical and surgical cases. He was surgeon to the Jefferson Medical College Hospital, surgeon to the Philadelphia Hospital, and during the war was Surgeon-in-Chief of the United States Army Hospital, at Twenty-fourth and South streets, in this city. He was a lecturer at the Jefferson College, and was a member of the College of Physicians and Pathological Society of Philadelphia.

JACOB A. WOOD, M.D.

Dr. Jacob A. Wood, a well-known member of the profession, died after a brief illness, at his residence, 45 Lafayette Place, on the 21st of March last.

He had suffered for some time from organic disease of the heart but was able to attend to his duties until about three weeks prior to his death.

Dr. Wood was born in Hancock, New Hampshire, May 10th, 1810, where he spent his boyhood. He studied medicine with the well-known Dr. Twitchell, of Keene, N. H., and attended lectures at the Vermont Medical College, at Woodstock, receiving his degree in 1836, and immediately commenced practice in his native town. Although meeting with success he decided to seek a larger field and therefore removed to Boston, Mass. While in general practice there he had occasion to treat a case of Pott's disease, and, failing to find an appliance that was adapted to the case, he commenced investigating for himself. In the course of time he developed a corset which answered the purpose so admirably that he soon gained a reputation for treating spinal difficulties.

He gradually gave up general practice, and, in 1858, in compliance with the solicitation of friends, he came to New York, and established himself at 31 Cooper Institute,

Since coming to this city up to the time of his death he gave his attention to the treatment of Pott's disease and lateral curvature of the spine.

From time to time he wrote articles for the journals, reporting cases and explaining his methods of treatment, etc.

He was devoted to his profession, and did a great deal to relieve pain and suffering. Naturally modest and unassuming, he shrank from publicity, preferring that his works should speak for him. As a friend he was most kind and considerate,

always doing for those about him. As a physician he was gentle, yet decided. He had an air of dignity about him which commanded respect from every one. In fact, he was a true Christian gentleman, beloved by all who knew him. His success in treating Pott's disease will be a lasting monument to his name. Dr. Wood was elected a member of the County Medical Society just before his death.

NEWS ITEMS AND NOTES.

Carbolized Air.—As an offshoot of Listerism, air which has been passed through liquid carbolic acid is recommended by Prof. Sneller, of Utrecht, as a substitute for the carbolic spray. The method suggests itself as a good one. The object of Lister's method is to destroy the bacteria, but the acid employed for this purpose is itself a foreign matter, and, as such, must irritate to a greater or less degree. The carbolized air has the advantage of purity, and is, at the same time, free from objections to the spray. In practice, the air has been found to diminish the bleeding from a cut surface, while the spray encourages bleeding by the moisture it maintains.—*Mich. Med. Notes.*

Naif.—The following advertisement appears in the columns of a German medical contemporary; "Through the death of the late proprietor, a good practice (surgery) in a wealthy part of the country is to be disposed of, either by sale or lease. The present owner, daughter of the deceased, is young and single, and would not object to marriage with the buyer or tenant, if suitable arrangements were made. Address, etc."—*Medical Times.*

Marriages and Births in Prussia and France.—In Prussia there result from 100 marriages 460 children, while in France there are about 300. The number of births per 100 individuals of the total population is in Prussia 3.98, and only 2.55 in France. The annual excess of births over deaths per million inhabitants is 13,000 in Prussia, and 2,400 in France. It results from the above figures that doubling the population requires in France nearly 170 years, while this is effected in Prussia in 42 years.—*Med. and Surg. Reporter.*

Elephantiasis on the Island of Samoa.—Koniger. —This disease is the prevailing epidemic on this island; fifty per cent. of the native population being more or less attacked in the course of their lives. In marshy localities it prevails most seriously. While both sexes are equally attacked, the labia and mammae are not so often the seat of the disease as the scrotum. The cause is supposed to be malarious. Quinia, arsenic, change of climate, is the treatment. Turner operated seventy-five times for removal of these growths, one tumor weighing eighty pounds. Only one death, and this from diarrhoea ten days after operation.—*Ibid.*

[illegible]

1. *Phragmites australis* (Cav.) Trin. ex Steud.

Physicians, if they be not careful, may scatter the puerperal fever poison broadcast. I do most thoroughly believe in the contagiousness of the poison--no need for giving my reasons; although I well know that there are some sporadic cases which seem to generate no poison. But so great is my terror of carrying the malady that, if I see a single case, the minute I return home I take every stitch of clothes off which I wore at the time, leaving them out in the yard for a week at least, to air, take a bath, dress

myself in an entirely new suit of clothes, and even then am careful not to attend another pregnant woman for at least a week.

I was taught the theory of non-contagion and I acted upon it, and I really believe that I was the direct cause of the death of two women.

Be it contagious, or be it not; be it specific, or be it only the constitutional effect of a local impression, there is certainly something in a woman's condition after confinement, which generates a susceptibility to the occurrence of specific maladies. You attend a case of labor and everything passes off favorably. Everything is well on the second day also except that the pulse is perhaps too retentive of its speed and remains at 85, or 88, instead of dropping down to the normal. You see her again on four o'clock in the afternoon of the second day; if the pulse is still high make it a point to call at ten o'clock that same night, and if the pulse is still high and the patient complains of some chilliness, put your horse in the stable and be ready to meet the foe, for the disease almost always comes on within seventy-two hours after the delivery, but the time of its coming is very deceptive. It is apt to be preceded by exaltation of pulse, general malaise and dryness of the mouth, with a feeling of chilliness. The chill may be great or small, lasting sometimes only half an hour and sometimes still present after two hours have past. The surface is cold and the blood is driven in upon the peritoneum, which has been enormously distended, and upon all the abdominal structures which are but too ready to receive a great engorgement.

The longer the chill the worse the prognosis. The flush follows the chill and lasts a shorter or longer period, and then comes the sweat. "Put a little more coal in the stove," the patient had first asked, but soon it is, "take off this blanket, I am too warm." Where the chill, fever and sweat are of short duration the chances of cure are great. In graver cases the chill is longer and more severe. During the chill the pulse is always increased in frequency, (I am speaking, of course, of puerperal peritonitis) its beat is hard and it strikes wickedly. If the pulse is hard it shows that the vital power is good. I never saw a chill which did not bring up the speed of the pulse. I remember one case where the pulse had reached 140 to the minute in only two hours, and the chill was not yet off the patient. That pulse was not corded and wiry, but rapid. Generally following, but occasionally antecedent to the chill, a spot of pain is present in the region of the left or right ovary. The pain occasionally involves both ovaries. This pain is sharp, acute and lancinating. From the ovary as a centre, a zone of inflammation begins to spread immediately, and in two hours time the whole lower part of the belly up to the umbilicus is tender. The pain is so sharp that the patient will scream out. In whichever ovary the pain begins, the other soon begins to respond. The whole belly is swollen up, forming one great tympany. The patient has to be supported and lies with her knees drawn up so as to take the weight off the very sensitive belly. The respiration becomes very difficult and runs up to 30-45 in the minute, while the pulse ranges from 125-160. The diaphragm will not descend and every inhalation

gives pain. The pain radiates, first involves the hips and then runs up on the side of the chest.

The patient's face grows pallid, anxious, ghastly. The anxiety expressed is most strange and marvelous, that of cholera is not worse. I hope you will never see this fearful expression of anxiety, but if you do I am sure that it will burn itself indelibly upon your brain. Sometimes the face is inane and expressionless. Inanity, however, is apt to come later.

What is the character of the tongue? Whether the case be due to septic poisoning as in a hospital, or be one of purely sporadic origin, the tongue is white, creamy and swollen, with red edges. The tongue may become dry. Sordes on gums, tongue, or teeth is rare in puerperal peritonitis.

The fever, just as is the case with the chill, varies in severity and in duration. It may last for only half an hour, or it may go on until the vital powers are all burnt out and the patient runs into a cold collapse, with colliquative sweats and perhaps colliquative diarrhoea. In very malignant cases, the chill lasts two hours or more, and there is no stage of reaction, the patient falling into collapse immediately after the chill, and dying short of twenty-four hours.

I like a full reactive fever well. It shows that the system is still able to contend with the morbid influence. If the patient is seen early in the course of the chill, we shall not, as a general thing, have much difficulty in curing her.

The lochia may stop like a flash with the commencement of the chill, or the flow may dribble on indefinitely. If the dribbling continues the discharge is usually of a serous nature and but slightly tinged with blood. The blood which should be flowing out is locked up in the womb and is doing harm. Arrest a healthy hemorrhage in any woman by opening the window and putting on a cold napkin and the lochia will stop at once, and pain be set up in the neighborhood of the uterus.

I do not lay much stress upon the temperature of a puerperal patient as a sign of prognostic value. In no case do I attempt to isolate the symptoms in forming my prognosis, but I consider them as a whole.

The secretion of the kidneys is, as a general rule, somewhat scanty. Occasionally the bladder will lose its tone completely, and you will be obliged to catheterize the patient. This condition is rare in puerperal peritonitis, but quite common in puerperal metritis.

Suppose that the chill makes its appearance some forty hours after delivery and that the breasts stop swelling at once. The secretion of milk ceases of course, and here is another mass thrown upon the already congested womb and peritoneum. In the healthy recovery from labor, milk is a depurative to the uterine system. The breasts, as well as the uterus, are part and parcel of the reproductive organs, and are as closely related to it as are the ovaries.

The puerperal patient is usually very thirsty, but be very careful how you allow her much water. Let her have a dessert-spoonful at intervals of every ten minutes. That will be fully enough for her good. If you allow the stomach to become too full of

what it will bring on vomiting. This must never be allowed to happen, and it is possible to prevent it. It acts the system and draws back the food and increases the trouble.

Thus far I have been speaking of a case where there is peritonitis with some extension of the inflammation process into the mesenteric vessels and the mesentery. But, in addition to this, there may be some extensive infiltration through the root of the uterus into the cellular tissues, together with an upward movement into the pleural cavity.

THE TREATMENT OF DIFFICULT CASES.

Go home and get twelve books, and read only one in a day, and see if you know which is the best form of treatment recommended there in connection with this. It stands to reason that one treatment will not always be successful, for water will not always put out fire or quench thirst.

I believe that there is one form of treatment far superior to and much more successful than all the others.

You are called to see a case where the chill has made its appearance only an hour ago. You can hardly expect to cure, unless the patient, from the chill, runs not into a rapid collapse, with internal and external sweating and "a woman's hands." In such a beginning as this, God only knows what remedies can cure, and all that you can do is to ease the pain by opiates and allow the poor thing, at least, to die in peace.

Ordinarily you reach the patient some four hours after her seizure. The chill has gone, and the fever reaction is well marked. Again, you do not see the case until the twelfth or fifteenth hour of the disease, and then it is all over—the dyspnoea and tympanites are intense. If you live far away from the patient, the chances are frightfully against you.

But to go back to our first case. You see the patient about an hour after the inception of the chill. The pulse is 135 to the minute—it may be hard and strong and wiry, or it may be weak and hushy. The breath runs from twenty-five to forty times in the minute, and the pain is coming on.

Take the woman's arm up and bleed the fever out of her. Bleed her twelve, fifteen, eighteen ounces; bleed her until the pulse comes up. In this way you unlock the locked up circulation—the vessels all engorged. Do not be troubled about the patient, she can stand to lose the blood. Having bled the pulse up, now go to work and bleed it down to such a condition that the chill passes away, and that the woman breaks out into a warm perspiration. Seat the woman up in bed, put your knee behind her, or let some one hold her, and bleed her pulse down to eighty-five beats. The sunken look of the eye will pass away, the blood will return to the surface, and *the woman will take a long breath.* Then put your finger over the vein, but do not untie the arm, and, as the pulse runs right up again, take your finger away and let the blood spout again. *That thou shalt, as I said.* Two or three ounces less of blood may be all your patient needs. Yes! she wants to go to sleep—the pain has all gone.

Lay her down in peace, and give her three grains of opium. Will you now give her a good cathartic? Upon my word, you might as well put your hand

inside of her abdomen and stir up the inflamed peritoneum! So give her opium and let her rest in peace. But she cannot stand opium—never could stand it. Gentlemen, she has got to take it or she will die.

I prefer the watery extract of opium to the powder. One grain of the watery extract is worth a grain and a half of the solid opium. Moreover, the extract dissolves more quickly and is better borne by the stomach, particularly in women. I should certainly use the watery extract. I then take a piece of dental board enough to cover the distended belly, put it in a tub of hot water, sponge it out, rub some oil and liniment well into it, seeing that it is kept warm, and put it on the distended surface, covering it with a bit of oil silk or oiled cotton, and over all put a bandage round the body loosely.

According to the amount of pain which still remains, the patient should have two-thirds of a grain of the watery extract of opium, or one grain or a grain and a half, as the case may be.

Some physicians have given as much as ten grains of opium in the first two hours. This does nothing but blunt completely all the vital powers.

Together with the first dose of opium, give the patient ten or twelve grains of calomel, not as a cathartic—the opium will prevent it from acting—but to reestablish the secretion, and then do not give any more. The plan which some adopt of giving small doses of the calomel every few hours is a very bad one.

Give her also a little milk and some beet tea to drink, or a mouthful or two of water, with some delicate broth. Make every one in the house put on slippers or move about in their stocking feet. See that the doors of the rest of the house are kept either permanently open or permanently shut.

As a usual thing, in twenty-four hours the woman will begin to convalesce. Then diminish the amount of opium and increase the broth.

The milk secretion may or may not return. I have known the lochia to return in a few hours.

But we will imagine another case. When you see her the woman is in a collapse with a sunken face and cold tongue. Her breath against your hand feels cold from the intensity of the congestion. Nothing can begin to cope with this congestion but opium and bleeding.

Again, you see the case in the height of the fever, when the pulse is full and round and the face flushed. *If a high fever is rare, unless some trace of the uterine is retained, and then it is rare not to have heartache.* The pain is agonizing. Every beat of the pulse is striking a blow at the woman's life; it runs from 140-150 to the minute.

No matter whether the case be sporadic or of septic origin, you have got to bleed largely and boldly in the stage of fever. Make a large aperture in the vein and let the blood spout freely. Bleed her f [xxv] xxij. There are but few cases in which the pulse does not go down when this limit is reached, but do not stop here. In my last case I bled the woman f [xxxv], and in the case before f [xxxij]. The longer the fever has lasted the more blood must be drawn. I speak of that which I do know. *I know what the lancet can do in puerperal fever.* Let the test of the time to stop be when the

patient can take a full breath without hurting herself. Her tongue grows moist and her lips red. Do not dare to permit fainting, for, if you do, when the patient reacts from the fainting fit, there will be a relighting of the inflammation.

I have never seen a patient recover from this disease without bleeding. Leeches are of no use. When the convalescence is well progressed unload the bowels lightly by means of a warm water enema.

Puerperal metritis differs more in quantity than quality from puerperal peritonitis. The headache is great in metritis. The pulse and temperature are not so high. The chill and fever do not last so long. The lochia may persist as a glairy discharge. In other points there is no material difference between the two conditions. Leeches may be used in metritis, with calomel and opium. Keep up the calomel until pyalism appears. Some use blisters in metritis. I have no faith in them.

ORIGINAL ARTICLES.

CHRONIC SPASMODIC STRICTURE,

OR,

URETHRISMUS;

BY

F. N. OTIS, M. D.,
Surgeon to Charity Hospital.

SECOND PAPER IN REPLY TO DR. SANDS.

It is, perhaps, not altogether unfortunate when, in the course of a scientific discussion, a disputant, for the moment lacking scientific material suitable to repel an assault, seeks to evade it under the cover of personal allusions and side issues. These, and the anticipated rejoinder, usually stimulate the attention of an audience, and not unfrequently renew and increase its interest in the subject.

With this view of the case, I am glad to take advantage of the opportunity afforded me, by the reply of Dr. Sands to my previous paper, to correct some errors in matters of fact and some misapprehensions on his part, and in this way to confirm what I have previously asserted in regard to the reality and frequency of chronic spasmodic stricture, and of the dangers resulting from mistaking this purely functional contraction for true organic stricture.

It is not important to the appreciation of spasmodic stricture, that we should know who first discovered or originated the theory of reflex or sympathetic nerve disturbance, resulting in spasmodic urethral contractions; but it is important, in simple justice and honesty, that this scientific discovery should be credited to its proper source; that it should not be undervalued by attaching to it, names of individuals, whose only association with it, consists in the accidental recognition of cases implying sympathetic nerve disturbance.

This side issue is made by Dr. Sands, when he contradicts my statement that "*the theory of reflex action as applied to urethral contractions was first advanced by Civiale*," adding that "Civiale neither deserved nor claimed any credit for originality in this

respect." He then devotes two full pages to quotations from ancient authorities to show, that isolated and mysterious cases of irritation of the genito-urinary apparatus, had been observed as associated with various more or less remote alleged sources of the trouble. Thus, according to "John Hunter writing," he says, "in 1776" * * * "I have known the urethra sympathize with the cutting of a tooth, producing all the symptoms of a gonorrhœa," etc., etc.

A couple of hours more of erudite labor, in any good medical library, might have doubled his list of similar curious urethral cases.

Dr. Sands at least succeeded, by these irrelevant citations, in showing that effects much more extraordinary than chronic spasmodic stricture, have been known to result from even slighter causes than an anterior urethral contraction. He fails to show, however, that any one of the authorities quoted, have ever advanced any theory or opinion in regard to the manner in which the reflex disturbance which they observed, was produced; nor that there had been any attempted generalization of such cases, and the facts connected with them, as might be of practical benefit to the profession. Consequently his laborious researches do not in the least affect my statement that Civiale was the first to deduce from these, and similar observations, a distinct and well sustained theory in regard to the cause of reflex urethral irritations and also in regard to their successful management.

Any doubt as to the correctness of this opinion will, I think, be set at rest by a perusal of the following from Civiale. Thus—

"Independent of its local sensitiveness, the urethra possesses another kind, which may be termed sympathetic. * * * When this sensitiveness is aggravated, it may awaken sympathetic response in every organ and function of the body. * * It is not rare to observe that slight encroachments upon the urethral calibre induce marked difficulty in micturition: Those at the meatus having this effect not less than those located farther in (*Traité Pratique des Maladies Gémé-urinaires, Paris 1850, pp. 45 and 354*)

In regard to treatment by division of the contractions, he says:

"An effect so prompt, through means, the significance of which is plain, shows that the slightest obstruction in the urethra is able to produce the gravest symptoms, local and general."

Following is a statement of the reflex theory which Dr. Sands says in his first paper, (*Hospital Gazette, Vol. 5, No. 7, page 127*), "*was invented by the French Surgeon, Verneuil*," (1866). "Now, Verneuil, who appears never to have examined strictures by dissection, asserted as the result of clinical observation, that deep seated organic strictures so far from being common were extremely rare; and that in the immense majority of cases, supposed to be of this nature the real stricture would be found in the penile portion of the urethra, the contraction of the deeper segment being due to a reflex spasmodic action of the compressor urethræ muscle."

This was presented in 1866. Civiale's views were published in 1850. It will be remembered that Civ-

iale says, "*independent of its local sensitiveness, the urethra possesses another kind which may be termed sympathetic.*" * * * *When the sensitiveness is less, it is not more, rather a little less, than in the organ and function of the body.*" Here is the statement of the "reflex theory as applied to urethral difficulties," for which I claimed priority for Civiale. Again, "the constriction which seemed hardly to impede the flow of urine, is no sooner divided than all morbid symptoms vanish." * * * An effect so prompt, through means of which the significance is plain. Shows that the slightest obstruction in the urethra is able to produce the gravest symptoms, local and general."

Here then is the application of the theory.

Prof. Bigelow, of Boston, in speaking of Prof. Lister's connection with antiseptic surgery, in a recent lecture, touches aptly upon our duty to discoverers of scientific facts. On page 770 of the *Boston Medical Journal* of June 5th he says: "He who first assembles imperfect and detached ideas, and by their means establishes a proposition beyond a doubt, and then brings his demonstration home to the conviction of the world—a measure which is all important to his claim—has fulfilled every condition, essential, not only to the private and secret discoverer, who has no claim to the world's gratitude, but also to the public discoverer, who lays the world under obligation, and is on that account recognized by it."

My own acknowledgment of what I believed to be due to M. Civiale, is used to my discredit; presented as a manifestation of undue humility.

Dr. Sands says, "he then offers an humble apology to Civiale, as the one who first advanced the theory of reflex action as applied to urethral difficulties." The "humble apology" reads as follows: "Now while I claim my own published views and observations, prior to this date, to have been original with myself, I hasten to concede the honor of priority in this field to the distinguished French surgeon, to whom it fairly belongs." With the knowledge of exactly what Civiale taught, and the dates as presented in the preceding pages, it will be easy for the reader to judge as to the propriety and justice of according to Civiale the honor of being the first to advance "*the reflex theory as applied to urethral difficulties.*"

Dr. Sands complains that he is quoted by me as having said of M. Folet that "he had mistaken the triangular ligament for a muscular spasm." "This unmeaning sentence" he goes on, with some heat, to remark "was composed by Dr. Otis, and I cannot be found in my paper."

Dr. Sands does not tell us what he really did say, but leaves the very natural inference that it was something essentially different. Not that something unimportant was omitted, but he says distinctly, that "the sentence was composed by Dr. Otis." Here is the sentence *verbatim et literatim*: "Two things are evident on reading Folet's paper: first, that the writer is unduly desirous of defending a favorite theory, and secondly, that he has mistaken the natural obstacle situated in front of the triangular ligament for a muscular spasm."* Now, if Dr. Sands does not mean to state that M. Folet has mistaken a natural obstacle for a muscular spasm, what does he mean? And if, by "the natural obstacle," he does not mean the triangular liga-

ment, what does he mean? Is there any practical difference between the "natural obstacle in front of the triangular ligament"—i. e., the tissues covering it—and the ligament itself? I leave the profession to judge. Dr. Sands characterizes my quotation as an unmeaning sentence. I am willing to coincide fully in his estimate of it, and at the same time would suggest that this remark applies equally to what he did say. I accidentally, unintentionally omitted the words "natural obstacle in front of," which to me, even now, appear unimportant—meaningless. If Dr. Sands thinks otherwise, will he explain, and also what he means when he says in his former paper; p. 6, line 22. "If the point of the instrument, having arrived at the bulbo-membranous junction, is not directed with precision, it will, as you know, *impinge upon the triangular ligament* and be arrested in its course."* Why did Dr. Sands omit in this case "the natural obstacle in front of" if he considered it so important?

Dr. Sands calls attention to the four cases mentioned by Dr. Otis as having been operated on at the New York Hospital, and cites one of the cases in full. He then begs leave to "compare Dr. Otis' account with the following one condensed from Hospital case-book (vol. II., 1878, p. 165) which is open to public inspection," with the case which I briefly reported as the one which was the incentive among others, to the experiment for testing the question as to whether the stricture in a given case was organic or spasmodic.

"Bernard O. C., æt. thirty-five, was admitted July 31, 1878. Patient had gonorrhœa nine years ago, the discharge becoming gleet and lasting for six years. In the 5th year of the disease he had a perineal abscess, which healed after remaining open for ten weeks. Another abscess formed at the same site about four weeks before admission, having a fistula which had not yet closed. When admitted, he passed stream of urine about size of knitting-needle. Examination of urethra detected obstruction about five inches behind meatus, admitting only filiform bougie. At the same point, steel sound No. 25 F entered what appeared to be a false passage. High fever, with thrombosis of left femoral vein followed this examination, and no further mechanical treatment was undertaken until Sept. 26, when the deep stricture was found impassable to filiform bougies. The perineal fistula admitted a probe, which passed about an inch upward and backward toward the bladder. Sept. 28th. Operation. Patient etherized. Flexible bougie No. 5 F entered the bladder with difficulty, encountering resistance in the perineum; meatus which admitted No. 25 F incised, and with No. 22 F strictures diagnosed at $2\frac{1}{2}$ and $4\frac{1}{2}$ inches from meatus. These were cut with the dilating urethrotome to No. 37, after which sound No. 35 passed without difficulty into the bladder."*

This fairly reports a case which occurred in the service of Dr. Allen, one of Prof. Sands' colleagues, in the New York Hospital, and which was subsequently reported to the Medical and Surgical Society as, in Dr. Allen's opinion, one of deep spasmodic stricture, which had been *previously mistaken for and treated as a deep organic stricture*. He also claims, at the same time, that the prompt and complete cure which resulted, was in consequence of the division,

with the dilating urethrotome, of several organic strictures of large calibre, situated in the penile portion of the canal.

This case is cited, as Dr. Sands says, "*To show that I am not fastidious and to illustrate my meaning.*" This is an apparent attempt to justify a previous statement that he has "not been able to accept the reported cases as being free from errors of observation." He then calls attention to the manifest discrepancy existing between this case and the one I referred to as having occurred in the New York Hospital, where "the perineal section had been decided upon," "notices to that effect issued"—"patient placed under the influence of an anaesthetic," etc., and which, after removal of anterior strictures by dilating urethrotome, was shown to be free from deep organic stricture by the passage of a large sound, "which slipped by its own weight into the bladder."

"The discrepancy of my own report," says Dr. Sands, "and the one I have given must at once strike every reader." He then goes on to explain.

The alleged discrepancy does, indeed, appear formidable, and would certainly be so if it were not for the fact, that the case I cited, *was not the one he quotes*, but was one which occurred in the service of another of Dr. Sands' colleagues in the New York Hospital, (Dr. George A. Peters,) some time previous to the occurrence of Dr. Allen's case, and which Dr. Peters reported to me, in person, at my office, on the morning following the day of the operation. This operation was also, among others, witnessed by Professor Thomas M. Markoe, another of Dr. Sands' colleagues in the New York Hospital and Professor of Surgery in the College of Physicians and Surgeons. Prof. Markoe subsequently verified Dr. Peters' statement, to me, in regard to the case, in every essential particular. Since the appearance of Dr. Sands' paper, both Dr. Peters and Dr. Markoe have unequivocally stated to me their continued conviction that the case in question was one of chronic spasmodic stricture, and that, in their opinion, it was overcome by the division of the anterior strictures, as I have previously stated.

If Dr. Sands has not succeeded in showing that my statement of this case is incorrect, he has at least demonstrated that he is, not too "fastidious."

Dr. Sands attempts to explain Dr. Allen's case, by attributing the previous failures to pass an instrument into the bladder, to its arrest in a false passage, and claims that this accident caused the error of diagnosis. That there was really no stricture of any sort, and that the previous treatment for close, deep organic stricture, was wholly a mistake.

This view of the case will be better appreciated when it is known that Dr. Allen succeeded to the service of Dr. Robert F. Weir, (still another colleague of Dr. Sands in the New York Hospital,) and that the case referred to had been under Dr. Weir's observation and care for some time, was considered the subject of deep, close organic stricture, and treated as such, and was so considered when the service was entered upon by Dr. Allen.

Now, Dr. Weir is well-known as an able, careful, and judicious surgeon, with an exceptionally large

experience in the matter of urethral strictures, and perfectly familiar with all the expedients which guard against errors of diagnosis. We may, then, reasonably hesitate in accepting Dr. Sands' theory of the case. M. Verneuil and M. Folet, in Dr. Sands' opinion, are deceived by "the natural obstruction in front of the triangular ligament." Dr. Weir is deceived by a false passage. Drs. Lincoln and Garnett, in the case reported in my previous paper on "Urethrisms," probably either ran against the "natural obstacle situated in front of the triangular ligament," or entered a false passage, or both. Then, again, my own numerous published cases, demonstrating that the difficulty is dependent upon a chronic spasmodic stricture, Dr. Sands says "do not impress me (him) with their validity." In point of fact, everybody is deceived but Dr. Sands. One thing, however, appears to be admitted, viz.: that the removal of the anterior strictures, followed by the introduction of a large-sized instrument, serves to clear up the diagnosis even for Dr. Sands.

Dr. Sands has reminded us that the books of the New York Hospital are open for public inspection. To these books reference will now, for the first time, be made by me. The cases will be quoted *verbatim et literatim*: (Case Book Vol. 17, page 418.)

SERVICE OF DR. PETERS.

F. Whitehead, 33, April 20, 1878. Twelve years ago had gonorrhœa, followed by stricture. Relieved by bougies. No trouble until three years ago. Then gradual decrease in size and force of stream,—spiral. Past year urinated only drop by drop. Before operation meatus admitted 18 F. to $3\frac{1}{4}$ inches; 14 F. passed through this to $4\frac{1}{2}$ inches. Beyond that only filiform passed, with difficulty. Internal urethrotomy by Dr. Peters, April 26th, 1878. Etherized. Meatus slit with bistoury. Urethra injected with olive oil and measured. Filiform passed into bladder, followed by Maisonneuve's director. Urethrotome (blade) with cutting capacity of 12 mm. passed, dividing only anterior stricture. As No. 25 F. would not pass the $4\frac{1}{2}$ stricture, Maisonneuve again introduced. After which No. 25 F. passed down to 6 inches and stopped. Beyond this only No. 15 F. flexible passed.

Otis's urethrotome introduced, dilated to 40 mm., and anterior strictures divided, when No. 36 F. passed, without any difficulty, into bladder, *showing that obstruction at 6 inches was only spasmodic and depended on strictures of large calibre, anteriorly.*

No bad symptoms followed until the fourth day, when, after introduction of a sound, had severe chill and high temperature for several days. No further trouble. When discharged could himself pass 30 F. with ease. Discharged *cured*, May 14th, 1878. This is probably one of the cases which Dr. Sands "found in the records of April and May, 1878," and which he says are "so carelessly written, however, and the facts and figures are so jumbled that I defy anybody to draw from them any definite conclusion."

I am inclined to accept Dr. Sands' defiance and to claim: 1st.—That there is a clear record of the admission of the patient April 20th, 1878. 2d.—That according to the examination of Dr. Peters the

urethra was strictured to 18 mm. F. or 9 English from meatus to $2\frac{1}{2}$ inches, from thence 14 F. or 9 English from meatus to $3\frac{1}{2}$ inches from thence 14 F. or $5\frac{1}{4}$ English to $4\frac{1}{2}$ inches, and beyond this point, after careful trial, the urethra would only permit the passage of a filiform bougie. 3d.—This case was operated on (according to the hospital record) April 26th, and the urethra restored by the use of "Otis dilating urethrotome," so that "No. 36 F. (or No. 24 English) passed without any difficulty into the bladder." 4th.—According to the same record, the spasmodic character of the deeper and apparently the most important stricture was recognized, as shown by the statement that "*the obstruction at 6 inches was only spasmodic and depended on stricture of large calibre anteriorly.*" 5th.—That this patient who had stricture to the extent that "for the past year he urinated only drop by drop," was "discharged cured, May 14th, 1878, exactly eighteen days after the operation."

I am quite willing that Dr. Sands should apply his motto "*Ex uno disce omnes*," and rest upon the judgment of the medical profession for the decision as to its value.

In answer to my challenge, to be more explicit in regard to the objectionable results and complication of my operative procedures, he replies that he "has seen the slitting of the meatus carried to such an extent that the patient afterward was unable to project the stream of urine in a natural manner." This result may certainly be accepted, as Dr. Sands states that he has seen it. I would simply remark that I should consider such an amount of "slitting" unnecessary and unadvisable. Having never slit a meatus to such an extent nor counselled any such slitting, I cannot see why I should be held accountable for such an operation any more than Dr. Sands. I insist that in all such operations the size of the meatus should be made to *correspond* with the size of the urethra behind it—nothing more, nothing less. He also cites a case in which an eminent surgeon was obliged to perform a plastic operation to restore a meatus so destroyed. A very proper and simple thing, it appears to me, for the eminent surgeon to do, if such an operation became necessary. Such a necessity might however be alleged, while the meatus was no larger than the urethra behind it, as it is held by some, that the meatus should be the narrowest part in order to aid in projecting the stream of urine. Discussion of this point with Dr. Sands before the New York County Medical Society, 1876; may be found in my book on "Stricture of the Male Urethra, its Radical Cure." Putnam's Sons, New York, 1878, p. 176, et seq. Granted, however, there was a necessity for such an operation, I should fully coincide with Dr. Sands in the propriety of doing it. He also states that "he has seen in consultation, persons who have suffered from troublesome hemorrhage, varying in duration from several days to a month, in consequence of having been cut with the (my) dilating urethrotome, an excellent instrument of its kind, but the use of which has been carried to a dangerous excess." It appears to me that it is quite proper, and right that Dr. Sands, excellent surgeon that he is, *should* be called in consultation in cases of hemorrhage where my dilating urethrotome had been used to excess. None of these cases were

mine, however, and I do not approve of the instrument being used by tyros in surgery, nor to excess by any one. I will only say that, in my book on "Stricture of the Male Urethra, its Radical Cure," 1879, p. 279, I published results of 1331 operations performed in accordance with the views I have advocated, *without a death or permanent disability of any sort.*

"Finally," Dr. Sands says, "I have heard of a number of cases in which death has resulted from the employment of the dilating urethrotome." "*It is hard*," he further remarks, "*to obtain access to these fatal cases, which are not usually reported, and which are generally considered as a kind of private property.*"* Dr. Sands then cites three fatal cases following the operation with the dilating urethrotome which have lately happened, two of which were said to have occurred in the previous week in one hospital. This statement is made in such a way as to convey the impression that death occurred, in each case, solely in consequence, and as a direct effect of the use of the "excellent instrument of its kind," the dilating urethrotome.

Through the kindness of Dr. Thos. M. Markoe and Dr. George A. Peters, (the surgeons in whose service the deaths referred to by Dr. Sands occurred,) I have received full notes of these cases.

Of one of these cases Dr. Sands says that the patient died from uræmia sixteen days after the operation. He omitted to state that, after division of the anterior strictures, continuous dilatation of the deep organic stricture, which was left untouched, was resorted to, and instruments of gradually increasing sizes, from 5 mm. to 9, were tied in several hours on the 12th and 15th, and retained for a longer or a shorter time on the 16th, 17th, 18th, 19th, and 22d. Tied in also from the 23d to the 24th, when the patient gave unmistakable signs of uræmic intoxication, and died uræmic on the 25th.

At the autopsy Dr. Sands says "three deep incisions were found involving the anterior $3\frac{1}{2}$ inches of the floor of the urethra, the mucous membrane of which in this situation was not thickened, and showed no appearance of disease to the naked eye.* A tight organic stricture undivided had been treated by dilatation." The important fact that this treatment had been carried on almost continuously, and by the tying in of the bougies, during the interval, sixteen days from operation to death by uræmia, appears to have escaped the notice of Dr. Sands, as a possible factor in causing the uræmia. It is unquestionably true that in this case death followed the operation of dilating urethrotomy. But for those who are familiar with the possible consequences of treatment of close deep organic stricture by continuous dilatation, *i. e.*, that is to say, *with the instrument tied in*, it is not necessary to invoke the influence of the operation of dilating urethrotomy sixteen days previous to account for the suppression of urine. While suppression of urine from dilating urethrotomy, performed in the anterior five inches of the urethra, is an accident which I have never seen—never before heard of—and do not esteem of sufficient probability to be worth considering in the present case.

Of the two cases occurring in one hospital during

the previous week, the first of these was in the service of Dr. George A. Peters at St. Luke's Hospital. D. T. S., aged 38. History of repeated gonorrhœa and of stricture. Stream size of needle, at times voided in drops.

Feb. 16th. Examination. Meatus cut to 30 F. Stricture located with bulbous sounds, one of 20 m. at $2\frac{1}{2}$ inches; 4 elastic bougie passes into the bladder; 30 bulbous sound detected a stricture at 5 inches. Otis' urethrotome introduced beyond this screwed it up to 40, and divided the stricture, and also the one at $2\frac{1}{2}$.

On the fourth day patient complains of severe pains over region of heart; pulse rapid and irregular.

On the fifth day "Dr. Wheelock diagnosed a diaphragmatic pleurisy." Report says pain continues in side; no mention of any urethral difficulty; chest trouble goes on, and on the 12th patient develops a facial erysipelas; chest trouble steadily progresses.

17th. Flatness on left side on percussion; heart weak and irregular; died at 8 A.M.

Autopsy—"In left side of thorax were two cavities divided by a septum, in the axillary line, filled with purulent fluid; a large portion of the left lung was solid; a small portion œdematous, the large tubes containing frothy serum; on the anterior of the middle lobe was a fibrinous exudation."

Heart covered with fibrinous exudation. Pericardium contained sixteen ounces of pretty clear serous fluid.

Liver congested.

Spleen enlarged; soft and muddy color; surface covered with a thick fibrinous exudation, and there was an ounce or two of pus near its upper portion.

Kidneys normal.

No abscesses nor other abnormalities discovered anywhere.

This case, at the time of its termination, was reported to the Medical and Surgical Society, as one of a man in bad general condition from long continued free living. The site of wound of the urethra at the autopsy was represented as perfectly healthy. No evidence of any trouble. Dr. Peters asked the opinion of the Society as to whether this could or not be considered a case of pyæmia, or whether it was not a case of idiopathic inflammation of the pulmonary and cardiac apparatus, dependent chiefly upon the broken-down condition of the patient, and bearing but a coincidental relation to the operation on the urethra. While so grave a question has been raised in regard to the cause of the trouble, it does not seem to me that it can be legitimately or reasonably claimed as a case of pyæmia, and death, caused by the operation of dilating urethrotomy.

NOW AS TO THE THIRD CASE

This occurred in the service of Dr. Thos. M. Markoe, at the New York Hospital, the patient Thos. A. Madigan, was admitted with an ischio-rectal abscess, having also a history of a similar trouble a few months previous. April 8th, 1879, abscess opened, discharging half an ounce of foetid pus.

18th. Abscess said to have entirely healed, patient is found to be suffering from long standing difficulty of urination with history of occasional attacks of retention of urine during previous 12 years.

Is examined and found to have strictures. Meatus 21. F—Stricture at $\frac{1}{2}$ inches No 12 F also several bands same size at 3 inches. April 21st, operated on with Otis' dilating urethrotome dividing strictures until No 32 bougie a *boule* passes without obstruction through the urethra and into the bladder.

22d. Had a chill followed by nausea and vomiting, temperature 101° . Half an hour later had another chill followed by temperature 104° ; dropped on the 23d, to 101° ; 24th, rose again to 104° ; 25th and 26th, same; severe headache, throat sore, redness and tenderness over left buttock. 27th, and 28th, continued high temperature. Pain in left chest and over precordial region with dulness and diminished respiration in lower lobe of left lung. Grew gradually worse and died seven days after the operation. Autopsy revealed, among other things, miliary abscesses of both kidneys, left lobe of prostate broken down; probe passes through it into bladder. Pus also in the fluid of the left knee joint. Thus leaving no doubt as to the correctness of the previous diagnosis, viz.; pyæmia.

This case might support Dr. Sands objection to dilating urethrotomy, were it not for the fact that during the previous month, in the same ward of the hospital, a patient was operated on by Dr. Markoe for close stricture with the urethrotome of M. Maisonneuve. This operation was followed by an attack of well pronounced pyæmia, from which after two months of suffering, he made a fortunate recovery.

The occurrence of pyæmia in the case of Thos. Madigan, was clearly attributable to infection, dependent upon a pyæmic atmosphere, in the ward where the previous case of pyæmia had occurred and in which ward he was lying when Madigan was operated on. In order to show that this view of the case was taken by the Hospital Staff, the ward in which these accidents occurred was vacated, cleansed and thoroughly disinfected and at the present writing June, 18th, has not yet been reoccupied by patients. In further confirmation of the above view of the occurrence of pyæmia and the cause of death in Madigan's case, Prof. Markoe has recently stated to me, that, subsequently to the first case, several other cases occurred in that ward, where minor surgical procedures had been followed by unusual constitutional reaction, which he now considers to have been the result of the vitiated condition of the atmosphere. With this view of the case it appears to me unfair to attribute the death of Thos. Madigan to any especial instrument or mode of operation; as much so as if the ward had been infected with the poison of *hospital gangrene* when Madigan was brought into it after his operation, and had subsequently died of that disease.

"Finally," says Dr. Sands, "I have heard of other cases in which death has resulted from the employment of the dilating urethrotome." The character of the cases he has cited will, I think, be accepted as a proof that he has reported nearly all that he knew. I will endeavor to complete the list of alleged cases of death "resulting from the employment of the dilating urethrotome" by stating a case, which was presented for consideration at the meeting of the medical and surgical society, on the occasion of the discussion of Dr. Peters's case.

G. Y., a gentleman who was under treatment

for the active stage of syphilis, in about the sixth month, was also the subject of close deep long standing stricture. He was operated on first with the urethrotome of M. Maisonneuve, and subsequently, at the same sitting, the anterior strictures were divided by means of the dilating urethrotome. These operations were followed by pyæmia, and the gentleman died.

I would simply remark in regard to this case which Dr. Sands undoubtedly includes in his presentment against the dilating urethrotome and my views generally) that, as the division of the deeper, and much the graver strictures, was accomplished with the instrument of M. Maisonneuve, the dilating urethrotome used subsequently, cannot be clearly held responsible for the unfortunate result. I would also take the occasion here to remark that any surgeon who operates on a close, deep stricture during the progress of active syphilis, in my opinion, as distinctly invites the accession of pyæmia, as if he operated during the progress of any acute inflammatory disease; and I would hold that a death occurring from an operation performed under such circumstances can not fairly be attributed either to the method of operation nor to the character of the instruments employed. After giving in my book on the radical cure of stricture, the results of 635 consecutive operations of my own, by the plans which I have advocated, the closing paragraph reads as follows: "I am prepared to assert that such results as I have recorded are not exceptional and may be attained by any surgeon who will provide himself with the necessary instruments for the performance of dilating urethrotomy, and use them in accordance with the plans and principles previously enforced, *and with the necessary judgment and skill as are considered essential to success in any other operation of like importance.*" If the procedures advocated by me are to be held responsible for the lack of judgment and skill, and accidents of infection to which all surgical operations of equal importance are equally liable, I shall be forced to decline any personal responsibility attaching, except in such cases as are conducted under my own observation or in such a way as to meet my entire approval.

One word more in reply to Dr. Sands. In charging a large mortality against the operation of dilating urethrotomy he makes use of a form of expression which insinuates that concealment, in other words *deception*, has been practiced in regard to the real number of fatal cases, thus he says, "It is hard to obtain access to these fatal cases which are not usually reported and which are generally considered as a kind of private property." This appears to me to be one of the side issues and personal allusions to which I referred in opening this article. To this I am glad to reply, by quoting from my work on the Stricture of the Male Urethra, its radical cure, the note there inserted to repel a similar insinuation. After the report of 635 operations of my own, including 18 operations by the perineal section, with but two deaths, and these where perineal section was complicated with Bright's disease of the kidneys, both of which are circumstantially reported. This note follows. "Besides the above reported cases, *only two other deaths have occurred in any way associated with my practice, from cases in any degree attribu-*

able to the operation." One, aged 78, Paterson, N. J. Here long continued and painful disease of the bladder was relieved by dilating urethrotomy. Recontraction occurred. More extensive division of stricture, resulted in relief a second time.

A week after this operation, a catheter was left in the bladder for 48 hours by the family physician. A chill, with suppression of urine, followed, and, subsequently death by uræmia; distinctly *not* from the cutting operation, over a week previous, *but from the urethral irritation caused by a prolonged retention of the catheter for the relief of frequent troublesome micturition.* This was found on post-mortem examination to have been due to the presence of a small phosphatic calculus which had escaped detection during life.

SECOND CASE.—A man of 45, suffering from close, chronic, deep stricture, came under my observation during a recent visit to Syracuse. Repeated efforts by several surgeons, during a long period, had failed to pass any instrument into the bladder. The case had become urgent on account of retention and severe suffering. Etherization was effected with great difficulty. Spasmodic tremors of the limbs continued, after profound anæsthesia, so that there was much embarrassment in the introduction of instruments. After waiting and careful trial, at the end of an hour and a half I succeeded in introducing a Maisonneuve staff well into the bladder. This was followed by a medium-sized blade, subsequent to the withdrawal of which, a gum elastic catheter was introduced and the urine drawn off. The case was left in charge of the two surgeons previously in attendance. About a month later I learned that the patient had died in a comatose condition on the third day after the operation, after having taken largely of morphine and chloral to control nervousness and pain. One of the attending surgeons stated to me subsequently, that *there was no suppression of urine.* No autopsy was made. I have been thus circumstantial in presenting the record of deaths in any way implicated with operative procedures at my hands, because it has been stated by at least one prominent surgeon in this country that all the deaths occurring from urethrotomy, in my practice, had not been reported, and I have also had an inquiry to the same effect made of me by several amiable friends. It is due to the operation of dilating urethrotomy, to humanity, and to myself, that further misunderstanding of this matter should be prevented, and I will say in regard to it still further that the foregoing statements cover a period of the sixteen years during which I have been a public teacher of diseases of the genito-urinary organs. The book containing this note was published July 1st, 1878. From that date to the present, June 19th, 1879, I have performed fifty-six operations, (five of which were combined with external perineal urethrotomy,) without a death or serious accident of any sort. If results in the future may be inferred from the known and proven results of the past, I am confident that Dr. Sands will continue to find it "hard to find access to those fatal cases," which, from the difficulty he has hitherto found in discovering them, he has perhaps naturally concluded that they were "private property." In order to disabuse his mind

and the results of any that have been led astray by him, I have taken this opportunity to make my own property in the matter as public as possible.

Prof. Sands, in his discussions and published writings on genito-urinary matters, has mirrored, very faithfully, the views of Sir Henry Thompson, of London, whose study conservatism is at present, interesting the surgeons of two continents. If Professor Sands has had a large and successful experience in the application of these views, as might be inferred from the force of authority which he assumes in criticism of the opinions and procedures of others, he is entitled to it, and it has been given to the profession.

Dr. Sands objects (and very properly, I think) to having the results of surgical procedures, (dilating urethrotomy, for example,) retained as "private property." Will he not then follow my example, and give to the profession all his fatal cases from operations in any way connected with his treatment of diseases of the genito-urinary organs. If, besides this, Prof. Sands would also state how many such cases he has treated; what the condition when the treatment was commenced; what its character, how long continued, and what its final results, he would in this way, and in this way alone, it appears to me, enable the profession to judge of the true value of his views and the validity of his claim to be considered an authority on such matters.

Professor Sands has achieved an enviable reputation far and near this country both as a teacher of anatomy, and as a proficient general surgeon. Were I, or any other surgeon, to criticise the brilliant operations on naso-pharyngeal tumors, ligatures of the carotid artery, intestinal invaginations, subcutaneous divisions of the neck of the femur, etc., etc., which he has published, no one more quickly than he, would demand the practical and well authenticated experience in such cases, that such criticism would imply. Let him then come forward with the recorded results of his experience in genito-urinary procedures. Until then, it may be assumed as excusable, if he is denied the right to the judicial position, which he so defiantly assumes in his discussion of the subject.

This controversy was opened by Dr. Sands professedly to consider the question of inflammatory and spasmodic stricture. I claim that it is not my fault that side issues and personal matters have been introduced, and that the original subject has been twisted into a discussion of the treatment of organic strictures by dilating urethrotomy, and its results. After having, as I believe, successfully met all the arguments which have been advanced against the existence and importance of chronic spasmodic stricture, I am now ready to discuss any other questions, however remotely connected with this subject, that Dr. Sands may choose to introduce.

But before closing this paper, I should be glad to return for a moment to the consideration of the subject legitimately under discussion, viz: *Chronic spasmodic stricture*. The nature of my claim in regard to this matter may perhaps be best appreciated by a quotation from my paper on this subject, published in the *Archives of Dermatology*, Vol. I., No. 3, 1875.

In this paper six cases were presented, in detail, in

illustration of the identity of symptoms, in organic and chronic spasmodic stricture in certain instances. Thus this latter variety of strictures were shown in the cases reported to present:

- 1st. *A gradual diminution in the stream of urine.*
- 2d. *Persistent frequency of micturition.*
- 3d. *Persistent resistance to the introduction of large instruments in the hands of skilled surgeons.*
- 4th. *Distinct grasping of small instruments, and a gradual toleration of instruments of increasing size, and in this so perfectly simulating the behavior of true organic stricture that the most skilled and learned surgeons have been deceived by these conditions.*
- 5th. *The persistence during a long period of years, of all symptoms which are recognised by authorities as characteristic of organic stricture.*

In my previous paper in reply to Dr. Sands the case of Mr. D. J., page 16, *et seq.* was presented as an example of one of the severer grades of urethrismus or chronic spasmodic stricture, simulating true close organic stricture. I desire now to call attention to a degree or variety of this difficulty, which I have reason to believe has escaped the observations of surgeons generally, viz: Urethrismus or Chronic Spasmodic Stricture simulating obstruction from an hypertrophied prostate gland. I have met with quite a number of such cases, one of which may serve as the type of this class. Mr. W., æt. sixty-four, came under my observation Dec. 25th, 1876, with the following letter from his family physician: "Mr. W. is suffering from enlarged prostate gland and the symptoms which usually accompany that condition of things, and his trouble has been coming on for some time past—difficulty in passing urine, pain and straining requiring use of catheter. Treatment has been; use of catheter, warm hip baths. Suppositories of opium and belladonna, laxatives, infus. buchu, mur. tr. iron, as the symptoms from time to time indicated, with regulation of diet, etc., etc." From the patient I gleaned the following: Never had gonorrhœa. First trouble of urinary apparatus was an attack of dysuria March, 1875, without any apparent cause, except, perhaps, drinking largely of carbonic acid water; lasted nearly a day, and passed off without treatment; second four months after, similar to first; quite well in the interval. Again free for a month, when urinations became gradually more frequent during day, and obliged him to rise four or five times during the night; walking gave him relief. Finally had a retention of urine, lasting, with much suffering, for twelve hours. Introduction of catheter resisted. Dr. Stephen Smith, (visiting physician to Bellevue and St. Vincent's Hospitals), who was called in consultation, passed a catheter and drew off the urine. From this time, catheter used three times in twenty-four hours. No urine passed voluntarily; great urgency and frequent agonizing pain before passing catheter; great straining, involving diaphragm and abdominal muscles. This condition continued up to the date mentioned, Dec. 25th, 1876. Examination of prostate shows but slight, if any enlargement. Ordinary catheter passes in without force. Urine drawn is thick with pus and mucus.

Examination of penis: circumference $3\frac{3}{4}$ inches, meatus 32, size of urethra 36 mm., from this to

bellio-membranous junction, as shown by urethrometer. Quiet and infus. triticum repens prescribed. January 2, careful examination made for stone; none found. Bladder irrigated with solution of borax twice a day. Examination of several specimens of urine showed nothing but catarrhal elements. No abnormal condition could be detected about the neck of bladder, and yet the patient could pass no urine voluntarily, and as soon as he made the effort, tenesmus of the vesical neck came on, which gave great distress.

Passing urine every two hours through catheter, which he has been taught to introduce. Having seen cases of somewhat similar character and unable to find any cause for the trouble, except a spasmodic one, *I introduced with great care, having a view to the importance of such a procedure in a case of this kind, and without, with the use of the French No. 32 solid steel sound, without force, through the entire urethra. I then followed it quickly with No. 34, in order to over distend the membranous urethra, which I believed to be the seat of the trouble.* A few minutes after, Mr. W. was seized with his accustomed desire to urinate, rushed in to an adjoining closet and introduced his catheter as usual. Returning somewhat hurriedly to resume conversation thus suddenly broken off, again in two or three minutes he again felt desire to urinate, and believing that his bladder had been emptied, simply took up the chamber, without any idea of urinating, when to his infinite astonishment and delight, he passed with perfect ease over a gill of urine. This was the first passed voluntarily since first relieved of his retention by Dr. Stephen Smith. From that time Mr. W. passed his urine *without the aid of a catheter*, on an average of every two hours for the next four days, introducing the catheter only night and morning for the purposes of irrigation. Great and rapid improvement in health and entire freedom from straining and tenesmus.

Jan. 4th, To carry out the treatment more fully, I incised the meatus to 36, the pre-ascertained normal calibre of the urethra, and passed 36 solid steel sound with complete ease through the entire urethra and well into the bladder.

From that time, the recovery from cystitis was rapid, and urine was passed voluntarily and in full stream up to Oct. 18th, when the patient called to say that he had remained quite well up to two weeks previously, not having, in the interval, to rise during the entire night to urinate; but that, since then, having taken cold by sitting on a cold stone, his urine had presented some sediment, and his urination was with increased frequency. The only treatment (aside from infus. triticum repens, which he had been using on his own responsibility), was by introduction of 33 solid sound, and to do nothing else until result has been ascertained.

Oct. 19th.—Mr. W. called to say that the irritation at neck of bladder, and referred to end of penis, disappeared at once, on introduction of the sound the day previous. Intervals of urination increased to between three and four hours, rising only once during the night. Recovery from the vesical catarrh, which was but slight, was complete within the week, and Mr. W., who is still under my observa-

tion in a general way, has been entirely well of his urinary trouble from that date to the present, over two years and a half.

During a conference with Dr. Stephen Smith, subsequent to Mr. W.'s recovery, he remarked that at his first visit to the case (which had been represented as one of enlarged prostate) he was struck by the ease with which a catheter of ordinary curve entered the bladder, and, passing his finger into the rectum, he was equally surprised to find the prostate but slightly enlarged. Concluding, however, that only the enlargement of the third lobe could produce the retention, in the absence of all stricture, he had accepted the case as one of centric prostatic enlargement. A previous case in his own experience, where a patient had been apparently cured of frequent and difficult micturition by the introduction of a large sized sound, enabled him to accept my explanation of the case of Mr. W. without hesitation.

One of the significant features, in cases such as I have thus cited, is the absence of any marked prostatic enlargement. In several, strictures of large calibre have been present. The case of Mr. D., reported in my last paper, is one of these.

Is it not possible that many cases of urinary trouble, now attributed to centric prostatic enlargement, may be due to *Urethritis*. The absence of marked prostatic enlargement or other vesical obstructions, or close deep urethral stricture, in any case of retention, in my opinion, will warrant the introduction of a full sized sound,* as a means of clearing up the diagnosis. One which may possibly result in prompt and permanent cure.

No. 108 West 34th street, New York, June 19th, 1879.

HOSPITAL RECORDS.

THE PHILADELPHIA HOSPITAL.

SERVICE OF CHURCHES, K. M. J. M. D.

Prepared for THE HOSPITAL GAZETTE.

INTERESTING CASE OF FACIAL PARALYSIS.

CASE I.—*Facial paralysis, with loss of hearing, tinnitus, and peculiar vertigo.*—B. G., æt. 52, a widow, had been healthy until twelve years before admission, when she had a severe attack of rheumatism, chiefly involving the knee joints. Four weeks later she began to have violent pain in the right side of her head, which subsequently extended to the top, and then to the left side. She suffered with these head pains, with but slight intermissions, for two years, when total paralysis of the left side of the face made its appearance, and was accompanied by loss of hearing and noises in the ear. Spells of giddiness of a peculiar character came on with the paralysis. On attempting to walk she would soon be compelled to run, and, on getting into a run, she would fall on her face, unless she could stop herself by catching hold of some object. She felt as

* By the term full sized sound is meant, one up to the full calibre of the urethra, as indicated by the rule of proportionate relation, or by actual measurement with the urethrometer.

though she, herself, and the foot under her were going around. These vertiginous spells gradually grew less frequent and severe as the patient's general health became better. She has never had a discharge from the ear, but has suffered from more or less headache ever since the facial palsy occurred. For three months she had double vision. For six months she had some difficulty in swallowing, fluids sometimes being regurgitated through her nose. On admission the right side of her face and both arms and legs were found to be affected by paralysis, and the left side of the face showed marked paralysis and atrophy. The usual lines and furrows were effaced, and the cheek sagged downwards. No movements could be performed by any of the muscles supplied by the left facial nerve. Lagophthalmos was marked, the left eyelids remaining wide open. The lower lid was slightly ectropic. The conjunctiva was generally somewhat injected. She had full control of the movements of the left eye, which she could move in any direction. A peculiar motility of this eye was noticeable. It was almost constantly jerking or wobbling upwards and downwards, going slightly outwards in its ascent. Sight in this eye, when it was fixed, was good. Her nose and mouth were drawn far to the right. She had no control whatever over the paralyzed muscles; she could not dilate the nostril, raise the lip, draw upwards or outwards the angle of the mouth, etc. She could speak distinctly and protrude the tongue without visible deflection. The uvula pointed slightly towards the right, and the velum hung lower on the left than the right side. On touching it with a probe it retracted upwards and towards the right. Taste was generally defective, but it could not be made out distinctly to be abolished on the anterior part of the left half of the tongue. She complained of dryness of the mouth. Hearing in the left ear was entirely gone, and she had constant noises in this ear. Smell was defective, but no differences could be made out between the paralyzed and healthy side. Sensation, as determined by the æsthesiometer and the faradic battery, was slightly, but undoubtedly, diminished on the affected side. Both farado-contractility and galvano-contractility were also much diminished. Reflex movements could not be produced by irritating the skin of the face. The surface temperature was carefully taken in the middle of each cheek; it was 91.8° F. on the left or paralyzed side, and 95.9° F. on the right. At times she still had spells of giddiness. On going up stairs she became giddy, but was never troubled in this way on coming down. Her appetite was poor; her bowels were constipated; she was frequently troubled with nausea, particularly in the mornings. The nausea was not accompanied by vertigo. She was nervous and irritable, and her general condition as regards strength was not good.

The symptoms presented by this case were interesting, and some of them unusual. They indicated an extensive lesion, probably a rheumatic or syphilitic exudation or tumor compressing the facial nerve at the base of the skull. Destructive disease of the petrous portion of the temporal bone might also explain the case. The peculiar form of vertigo is worthy of note. The facial nerve, in the first part of its course, passes forward, resting on the

cerebellar crus, and it might be considered whether an involvement by the disease of this arm of the cerebellum, or of the cerebellum itself, had not some agency in the production of the vertigo, and the tendency to run and plunge forward. Auditory vertigo does not usually take the form presented in this patient.

The head symptoms—pain and vertigo—were greatly benefited by the use of iodide of potassium and quinine. Strychnia and carbonate of iron were also administered with the effect of improving the general condition of the patient. Massage and faradization and galvanization, both with the continuous and the interrupted current, were persistently employed directly to the nerve-branches and muscles, but with little benefit, as both nerve and muscle degeneration had gone so far as to preclude much hope.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY

JNO. A. WYETH, M.D.

THE PLASTER OF PARIS JACKET IN KYPHOSIS.—VON LANGENBECK.

At the seventh congress of the German Surgical Society, v. L., demonstrated the Gypsum Jacket. The patient, a boy, had suffered from the disease in the dorsal region of the spine for two months, and could not stand up on account of the extent of pressure on the cord. He was chloroformed and suspended, and the plaster bandages applied after the method of Sayre, with the addition that the *cuirass* extended from the trochanters to as high as the seventh cervical vertebra and covered in the shoulders.—*Centralblatt für Chirurgie*, May 3d, 1879, p. 296.

SUPRA-PUBIC LITHOTOMY UNDER CARBOLIC SPRAY.—F. ULLZMANN.

After removing the stone, the wound in the bladder was sewed up with seven catgut sutures. The abdominal wound was closed by six of the same sutures, a drainage tube being left in which rested behind the symphysis, between the bladder and pubis. Antiseptic dressing. A catheter was left in the bladder, passing through the urethra, which gave exit to the urine for eight days, when it was removed. The urine then began to flow through the wound, and the catheter was again introduced *per urethram* and allowed to remain for six days. On the fourteenth day the patient was entirely well. The stone weighed thirty-five grammes (g = 15.435 grs.), and measured 40, 30 and 2 mm. (a millimetre = one twenty-fifth of an inch.) Ullzmann gives a very instructive *resumé* of the operation, and commends it highly.—*Centralblatt für Chirurgie*, May 3, 1878.

THE HOSPITAL GAZETTE.

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and the Collateral Sciences.

EDWARD J. BIRMINGHAM, A.M., M.D.
FREDERICK A. LYONS, A.M., M.D.

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EDITORIAL.

THE PRESENT LEGAL HOBBY-KILLING BY PROXY.

Human ingenuity is wonderfully productive of fanciful explanations of doubtful occurrences. Let an air of mystery shroud any performance, or doubt envelop its causes, and all legitimate occupations lose their attractiveness for the people within reach. Assuming a look of great concern bordering on funereal gravity, they investigate, reflect, consult and speculate—and there is born a solution, rather, solutions, numbering as many as there are units of humanity in the multitude. The full range of probability is exhausted, then that of possibility, lastly conjecture builds with fancy and imagination—sense and reason are sacrificed that each individual may have the gratification of unfolding his explanation of the present mystery.

Old age finds the greatest consolation, eases the path to the grave by being extremely unselfish in giving the benefit of a lifetime experience repeatedly and continuously in every possible instance. Young folks spread themselves extensively when doubt calls for wise opinions; there is the field for their talent to make display. How preposterous to expect youthful imagination to refuse to soar, and glib tongues to decline to wag when opportunity presents itself. Sooner expect the waters of Niagara to reverse their flow and climb the precipice than the rising lord of creation to be silent when curiosity is aroused. The middle aged properly trained in the past, and hopeful of future distinction in the field of prophecy and prognostication cannot help devoting their leisure to the unraveling of others' mysteries. Everybody, young, old or middle aged seeks the strange, that he may have the chance to explain it, tangles his explanation with every other per-

son's proceedings. The practice is universal, natural it is to be presumed, and its discontinuance would banish much genuine pleasure. One class of the human family make this faculty their source of profit, the lawyers. To them, besides the usual temporary gratification, its exercise brings a golden reward, therefore they excel in the exploring and explaining business. Their powers are cultivated and are controllable, reaching the end sought. The lawyer's task makes it obligatory upon him to observe carefully all the aspects of every event, while loyalty to his clients and the assurance of reward forces him to emphasize the favoring phases until a solution exactly adapted is adroitly worked out in perfection. This is his first work, the creation of a fanciful explanation. Afterwards the labor is devoted to the bending of the facts to accomodate this explanation; legal skill displayed in direct or cross-examination is great as it tends to confirm this, and pleading is effective only when it demonstrates the absurdity of every other solution. It is a legitimate pursuit and the highest superiority is conceded to the originator of the most striking favoring explanation (theory as it is professionally termed, who can firmly establish his theory by making witnesses narrate the facts in its support.

But the legal fraternity being only human, even in the practice of their granted privileges, and in the exercise of this cultivated doubt-dissolving faculty, become hobby riders. The success of one of their number by the use of any certain style of explanation or theory, attracts the others, and that theory is saddled and harnessed and ridden, until the poor thing falls to pieces from much and hard usage.

Murder trials, prominent because of the penalty attached to conviction, are very interesting in general, but as illustrative of the hobby-riding propensity of lawyers, are very attractive. For many years the theory of a first class defense of murder was invariably built upon a foundation of insanity, because lunatics could not be adjudged 'guilty of murder. The accused's ordinary movements and everyday remarks were tested, analyzed, compared and explained so wonderfully that he could not preserve an intelligent expression in the presence of the court. He was almost persuaded that he was a lunatic, felt very, very silly. If he dared to interpose an indignant denial, his counsel proudly claimed that act as proving continued insanity. Genealogical records and asylum histories were studied, and grandfathers' percutillones and grandmothers' hysteria were rehearsed in the best style of well-paid oratory. Family troubles with the foolish little revenges coming from passing anger were collected and arranged, intensified or

advised as the love or envy of neighbors dictated. All were made to support the hobby. The accused's habits, his much reading or little, his constant walking or frequent riding, his eating meat or his strict vegetable diet, his attachment to friends and his liberality to them, or his exclusiveness and miserly notions, whatever he did and however, proved his insanity.

The insane hobby was furiously driven, by one and all, in and out of season, with and without reason. Heavy oratorical efforts upon so slight a basis, however, soon began to arouse popular sympathy for the noble profession, thus straining its intellectual vigor, and before the mania fastened itself firmly, the lawyers, feeling a little streaked in their mental department, resolved to dismount from this hobby. That determination prevented the overcrowding of our insane asylums.

Another hobby was needed for exploring mysterious murders, and a good one was found. The attending physician was hustled into the place vacated by the lunatic; the killing is charged to the medical profession.

The entire volume of testimony as to murder, the declared intent, the malicious purpose, the actual attack with murderous weapon, is set aside as irrelevant and unimportant, as the killing was done by the physician, and murder includes killing. The accused may have proclaimed his purpose of murder, struck the blow or fired the shot, but then he knew that death would come in consequence of the doctor's attention, at least proof could easily be procured to make that appear probable, and he would be held guiltless of doing a doctor's bad job. "Killed by Proxy," is his counsel's plea, and proxy is the doctor.

When this plea is fairly urged, and conclusively supported by testimony, as in a few instances it has been, the medical profession has gained; the honor of the profession is made more secure every time that incompetency which has thrust itself in its midst is exposed. We are rejoiced at the honest effort of the lawyer who saves his client by a justifiable attack upon the impostors in medicine; honorable effort in any profession never works to the injury of the others.

We do smile in derision, however, at the miserable attempt of shysters to earn their fees by attempting to injure a profession, so pure as is that of medicine, without an assured justification for the attempt. By the dextrous use of their cultivated power of dissimulation, by their brow beating and cunning, they may at times cheat justice, save their client, but they add nothing of good to the world, do not increase the popular respect for the legal profession,

and do not touch with harm our profession, however malicious may have been their intention.

The confused statements of non-professional men testifying as to quantities of drugs administered, the statements of druggists founded upon the recollection of customers' faces, and the direct testimony of the prescribing physician, are generally thoroughly jumbled together, and in the minds of the inexperienced jurors, instead of teaspoonfuls of medicine for internal use, a quantity almost sufficient for a bath is supposed to have been ordered for and used by the patient. This is but a trick, and serves no good purpose, therefore has a short career even as an example of shrewdness. When such means defeat justice, discredit attaches to the authors; the legal profession is dishonored.

Frequently in cases of murder, when death is inevitable, which the physician discovers at sight, his duty calls him to resort to quieting draughts, in extra quantities, that the sufferer may feel less pain; humanity dictates such treatment. Yet the dishonest lawyer has too frequently used this act of kindness as a cloak for the murderer whose cause he espouses. In a hundred different ways has the medical profession been attacked by all the arts of deceit, falsehood, ignorance and bribery, directed by these legal representatives who have disgraced their own profession by seeking such assistance. The promptness with which this resort was suggested and improved upon, betrays an innate desire for low association, and the profession of medicine has not lost a jot or tittle of dignity therefrom. The profession can stand against such infamous assaults with a better feeling of security than the profession of law which tolerates and recognizes the authors of such assaults. The profession of medicine is made more honorable with every honest exposure of whatever incompetency has slipped past its entrance, therefore the administration of justice, when it touches our profession, has always wrought good; but the triumph of the shyster by trick in securing acquittal to a murderer, although seemingly at our expense, has let loose a murderer, has hidden truth, has encouraged falsehood, has made life less secure, has robbed justice, and sapped the foundations of morality. If law can nourish and glorify the hero of such a triumph, medicine can bear his barking.

SELECTIONS FROM JOURNALS.

A NEW THEORY OF LOCOMOTOR ATAXY.

Dr. Andreas Jakaes, of Buda-Pesth, adds another to the many theories which have been contrived to explain and reconcile the clinical phenomena and anatomical changes found in locomotor ataxy. He has published his views in a very epitomised form

in the *Centralblatt für die Medicin. Wissenschaften* (December 14th, 1878). According to Dr. Jaksas, the grey degeneration of the posterior columns is only a secondary process; atrophy of the posterior roots and horns or posterior meningitis being the only discoverable primary affections. The constant affection of sensation, moreover, is delayed transmission; anæsthesia and hyperæsthesia being often absent (Friedreich). He refers to Schiff's observations that the posterior columns normally transmit tactile impressions, while those of pain pass through the grey matter, and he quotes Friedreich's authority for saying that, under pathological conditions, the functions of the posterior columns may be performed by the grey matter, a slower mode of transmission. A normal muscular movement is not, he says, a simple jerk, but a series of always changing contractions all co-operating to produce the desired effect, and these contractions must depend upon an ever-changing stimulus transmitted through the motor nerves from the co-ordinating centre, while each muscular movement again sends back an impression through the sensory nerves to the same centre. If, now, these latter controlling sensory impressions, as he calls them, are delayed, the stimulus must be delayed also, and, in consequence, the muscular action reverts to an earlier phasis, and the movement becomes ataxic. In *tabes dorsalis*, the sensory function, normally performed by the rapidly conducting posterior columns, is carried on by the slower grey matter. When, therefore, the posterior columns alone are affected, ataxy ensues; when, in addition, the posterior roots and horns are implicated, anæsthesia and hyperæsthesia are present in proportion to the degree of the morbid change existing.—*Brit. Med. Jour.*

THE TREATMENT OF SPINAL IRRITATION.

Dr. Benedikt (*Wiener Medizin. Presse*, January 26th, and *Berliner Klin. Wochenschrift*, No. 17, 1879), has made some communications on the treatment of spinal irritation in hysterical patients, showing in how manifold ways these patients are affected by various irritants. He first calls attention to the importance of examining the urine in such cases. He observed, for example, in a case of very obstinate hysterical sciatica, that each attack was accompanied by great tenderness in the lumbar region, and, after several months' observation, it was found that on each occasion the specific gravity of the urine was increased. Wildungen water was administered, and the sciatica henceforth became amenable to treatment. Whenever the condition of the urine indicated the approach of a paroxysm the water was given, and for several years the patient has remained free from her malady. The same result was obtained by means of similar treatment in a case of hysterical anuria in a lady who was the subject of complete anæsthesia and paralysis of the right leg. In this case, the urinary secretion was repeatedly restored, in a perfectly normal condition, by the use of Wildungen water, and from five to seven grains of carbonate of lithia daily, and it became possible to remove the principal nervous disease by galvanic treatment. He also calls attention to the value of metallotherapy in the treatment of hysterical irrita-

tion. In a case of very severe hysterical convulsions, produced by the least psychical or external irritation, the author saw the attacks cease when the patient began to wear a Burq's chain made of zinc along her spine. A very remarkable means of overcoming hysterical irritation in many patients is to place the hands over the closed eyes; in this way, indeed, he says, a state of catalepsy, of inability to move, is induced, and is followed for several days by disappearance of the symptoms of irritation. A similar cataleptic state followed the drawing of a horseshoe-magnet over the cervical spine, or even over the peripheral parts, and with this was connected the relief of very numerous nervous disturbances, especially paralytic ones. This favorable result, however, attended the use of the magnet even when the cataleptic state was not produced.—*Brit. Med. Jour.*

BROMIDE OF POTASSIUM IN DIARRHŒA AND VOMITING IN PREGNANCY.

A writer relates, in the *Louisville Medical News* for April 12th, a case of incessant diarrhœa and morning sickness cured by bromide of potassium. The patient had suffered during all her previous pregnancies with this trouble, which lasted from the third month up to the time of delivery. As all the remedies used for vomiting in pregnancy remained without effect, it was thought that both the diarrhœa and vomiting were due to reflex irritation. He at once gave her twenty-five grain doses of bromide of potassium three times a day, the first dose half an hour before rising. As long as she continued taking the medicine, the troubles did not return, but as soon as she attempted to leave it off for a whole day, diarrhœa again set in. After the first week she was able to ward off all the symptoms with only one dose in twenty-four hours, half an hour before rising. During her next pregnancy, when again suffering from the old troubles, the same treatment was reverted to, and with the same success.

CORRESPONDENCE.

The following correspondence will explain itself. All we have to say further is, that having waited three weeks for the return of Dr. Wallace's lecture and not having received it, *although we enclosed seven stamps for its return*, we publish in today's GAZETTE an excellent lecture on puerperal fever, and guarantee that the report is perfectly correct in every particular.

ON REPORTING CLINICAL LECTURES.

Ed. Med. and Surg. Reporter:

An article appeared in THE HOSPITAL GAZETTE (a medical journal published in New York city), of March 29th, 1879, which claimed to be a report of a lecture delivered by me before the class of Jefferson Medical College, on "Placenta Prævia, etc." I saw the article on April 12th, and immediately addressed a note to the editor, expressing my "surprise and disgust" at the publication, and "utterly disclaiming the authorship of such a lecture," and declaring that "some of the statements in this so

NEWS ITEMS AND NOTES.

...I wrote as above, as they were false; and I requested him to "do me the justice of publishing my disclaimer at once." I received a note from him, bearing date of April 23d, and offering "to correct any mistakes or inaccuracies that may have appeared in my lecture." I waited for more than a fortnight for some published statement, such as I had requested. As none appeared in the GAZETTE, I again wrote to the editor on May 12th, saying that "having disclaimed the authorship, I cannot assume the censorship" of said lecture, and I desired him to write to me whether he would publish my disclaimer as I requested, and asking him to "favor me with a prompt answer." Having now waited for nearly a fortnight for an answer from him, and having received none (though I sent postage stamp for his reply), I respectfully ask you to publish this letter, that I may not remain under the imputation of having uttered such doctrine as that with which I have been falsely credited by the HOSPITAL GAZETTE.

Respectfully yours,

ELLERSIE WALLACE, M.D.

Lecturer on Diseases of Women and Children, Jefferson Medical College.
PHILADELPHIA, May 20th, 1876.

For Med. and Surg. Reporter.

DEAR SIR:—In your issue of May 31st I find a letter from Dr. Ellersie Wallace in relation to a lecture of his which was published in THE HOSPITAL GAZETTE of March 29th. May I claim sufficient space in your journal to give your readers the other side of the story, which is as follows:

Dr. Wallace had been asked, as a matter of courtesy, to permit his lectures to be reported, and had declined, even going so far as to threaten to have any reporter removed from the lecture-room. Recognizing the fact that the lectures belong to the profession, at the risk of Dr. W.'s displeasure we published a very excellent and carefully reported lecture of his on Placenta Prævia. The gentleman who made the report is a thoroughly educated medical man, who has reported lectures for THE HOSPITAL GAZETTE by nearly every medical teacher in New York and Philadelphia, yet no fault has ever been found with his reports. Such being the case, is it probable that the report contained statements "as absurd as they were false" unless such statements were really made by the lecturer. When Dr. W. found fault with the report I offered to make any correction which he might indicate, but this he declined.

The matter stands thus: Dr. Wallace delivers excellent lectures, which he refuses utterly to allow to be published. We propose to publish all lectures which may be found worthy a place in our columns, and, with this object in view, have lately sent an excellent lecture on Puerperal Fever, which will shortly appear in our pages, to Dr. Wallace for revision. We guarantee the accuracy of any and all reports appearing in THE HOSPITAL GAZETTE.

Hoping I have not trespassed too far upon your valuable space, I remain,

Very truly yours,

EDWARD J. TORRINGTON.

Editor HOSPITAL GAZETTE.

New York, June 13th, 1876.

Danger of Vulcanized India-Rubber Nipples.—An item is going the rounds of the medical press relative to two cases of poisoning reported as occurring in young infants who had used white vulcanized rubber nipples. The poisoning was said to be due to the sulphide of carbon used in vulcanizing the rubber.

Fatal Accidents in London.—Recent inquiry has shown that no fewer than eleven hundred and fifty-nine lives have been lost by accidents in the London streets during the past ten years, whilst the number of injuries during the same period is returned as twenty-three thousand three hundred and seventy-nine.

Murder of a Physician.—Two months ago, a very tragical and mysterious occurrence took place in Germany. Dr. Mulhäuser, a well known physician, was murdered, as is supposed, by his own servant, who also lay dead at a short distance. There were traces of a struggle, and death had in both cases resulted from wounds inflicted by a knife. It is supposed that the servant man, who had been at one period confined as a lunatic, had been seized with an attack of homicidal mania; and, after murdering his master, had committed suicide. The whole affair is shrouded in impenetrable mystery, and, as may be supposed, has given rise to a great deal of gossip and speculation. Dr. Mulhäuser left a young family but very indifferently provided for. A grand concert has been given in their behalf. Many of the principal artists attached to the imperial opera and Stadt theatre lent their aid, and the result has been very satisfactory from a financial point of view.

A Novel Partnership.—The Medical Society of Fairfield County, Connecticut, has been agitated over a professional question of a novel character. Some years ago, Dr. Pardee, of South Norwalk, married a lady, and then paid her bills while she went to New York and attended lectures at the Homœopathic College. Having received her diploma, Mrs. Pardee returned to South Norwalk, and the matrimonial firm conducted business together, the husband treating his patients according to the regular rules, and the wife securing a practice as a representative of homœopathy. Dr. Pardee's revolutionary conduct was soon brought to the attention of the County Medical Society. The charges brought against him were that he had carried homœopathic pills, etc., to her patients, and aided her in other ways. This matter has dragged along, as such cases are apt to do, going from the County Society up to the State Medical Society, and being then referred back, but at last the Fairfield County brethren have disposed of it by formally expelling Dr. Pardee.—*Med. and Surg. Reporter.*

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either new or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give us a testimonial for a year, and for that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

CLINIC OF DR. R. J. LEVIS AT THE PENNSYLVANIA HOSPITAL.

(Reported for Dr. H. S. LEVIS.)

A CASE OF INJURY OF THE BRAIN.

This man has been brought into the hospital with symptoms of brain shock. His head has been injured by the fall of a limb of a tree, blown off by this morning's gale. There is a scalp wound in the vicinity of the left parietal eminence, and a flow of blood from the left ear. The pulse is slow and feeble, and the respiration slow, with somewhat of a stertorous character. The pupils are contracted, and there is complete anæsthesia of the right eye; but the patient flinches when the left cornea is touched. The left arm and leg respond readily to the prick of a pin, but the right limbs do not. After all, the pulse is not very slow, and the symptoms of compression not very marked; but this is probably owing to the fact that they are masked by those of brain shock. The wound in the parietal region is now made larger, in order to enable us to ascertain whether or not a depressed fracture exists. There is no such injury discovered; there is probably a clot somewhere within the cranium, but as its situation is doubtful, no operation attempting its removal would be justifiable. The wound is allowed to bleed for a time to unload the vessels of the brain, and is then brought together by one or two sutures.

The patient has already had an enema of turpentine and water, with a view to its revulsive effect, and now he shall be put to bed, with his head elevated and kept cool. In addition, an active mercurial cathartic and full doses of bromide of potassium shall be given. The prognosis is extremely unfavorable. Bleeding from the ear may be a symptom of very serious import, and indicative of fracture at the base of the skull, or it may be that the blood has flowed into the ear from an external wound and is discharged when the patient's position is changed; or, again, it may come from a wound of the external meatus, or a ruptured membrane. The treatment of brain injuries involves a great many diagnostic points, but often the diagnosis cannot be made out with certainty, because of the impossibility of examining the contents of the cranium. This patient is given the treatment indicated by the symptoms, but it is impossible to say whether the condition is that of fracture of the base of the skull, laceration of the brain, or some similar pathological condition.

It was reported to the class subsequently that death had occurred with symptoms of compression of the brain.

COXAIGIA OPERATION FOR RESECTION OF THE HEAD OF THE FEMUR.

This boy, aged 19 years, is a sailor, and became attacked with disease of the hip while at sea. He has been in the hospital a number of months, during which time extension was kept up for a while, then he was allowed to go about with crutches, and exercise himself in the open air as much as possible. The obliteration of the gluteo-femoral crease, the widening and flattening of the buttock, and the existence of an opening near the great trochanter, rendered the diagnosis positive, though the patient is older than most cases in which coxaigia develops. The advisability of undertaking some operation to get rid of the diseased bone, has been under consideration for some time, and it is now thought to be proper to do something operative. The inflammation, which had subsided, has been re-awakened, and several sinuses exist which are discharging pus. This may be due to nothing more than a deep abscess of the hip-joint, but most likely there is necrosis of the head, and possibly, also, of the neck of the femur.

Upon consultation of the staff, it has been decided that the best thing to do is to cut down upon the parts, and ascertain the true condition of the structures implicated.

The knife is entered above the trochanter and carried behind it in such a manner as to make a long curved incision down to the joint. This gives access to the diseased articulation, when it is found that the head of the bone is entirely detached and lying loose in the acetabulum, out of which it is readily lifted with the aid of a retractor to hold the wound open. The separated portion shows little disease, and the acetabulum is normal, though after enlarging the incision it is found that the body and tuberosity of the ischium are carious. The carious bone is removed by the burr attached to the dental engine, which is of advantage, because it removes the dead structure and converts a chronic into an acute condition without enlarging the wound. The femur seems to be very slightly diseased, but has been tilted inwards by the adductors, and has apparently formed for itself a sort of socket on the ilium.

The wound shall be plugged with lint and carbolized oil, and thus be compelled to heal from the bottom by the granulating process. Extension apparatus will be applied after he is put to bed, in the manner you have seen it employed in the treatment of fractures of the femur. There will, of course, be shortening to a slight extent after this condition of the parts. * * * Since the operation two weeks ago, the limb has been kept straight by extension and counter extension. There is considerable swelling on the antero-lateral aspect of the limb, due probably to a collection of pus, that does not drain away by the opening already made. If it does not escape it may become necessary to make an incision into the abscess. The wound of operation is in a healthy condition, the boy has less hectic and has the appearance of being in a better state than he was before the operation. The opening is washed out daily with carbolized water, and then packed with carbolized lint.

Subsequently the abscess on the part of the thigh was opened and found to be not connected with the bone disease.

A CASE OF NON-UNION OF THE ULNA, COMPLICATED WITH FRACTURE OF THE INTERNAL CONDYLE.

Read at the Class of Graduates at the Long Island College Hospital, June 1870.

BY

U. S. WIGHT, M.D.,

Professor of Surgery.

Reported for THE HOSPITAL GAZETTE.

In the month of June, 1870, there came to my office a young woman, who said that she had always been in good health, and that she was eighteen years of age. She came to consult me in regard to her right forearm, which presented the deformity to be described below.

The mother of the patient said that her daughter, when about two years of age, fell from the bed to the floor—a distance of about two feet. The little patient was taken to a doctor, who did not find anything wrong with the forearm; and the injured limb did not have any treatment.

I made the following measurements in the presence of two medical witnesses:

First.—1. The axis of the left forearm did not have any perceptible *lateral* deviation from the axis of the left arm.

2. There was no lateral ginglymus of the left forearm on the left arm.

3. The flexion, or the extension, of the left forearm on the left arm was through a maximum arc of about 140 degrees.

4. The rotation of the left forearm was through a maximum arc of about 180 degrees.

Second.—1. The axis of the right forearm deviated *internally* from the axis of the right arm, so as to make an angle of about 160 degrees.

2. There was, when the forearm was fully extended, a *lateral* ginglymus of about 5 degrees.

3. The flexion or the extension of the right forearm on the right arm was through a maximum arc of about 120 degrees.

4. The rotation of the right forearm was through a maximum arc of about 40 degrees.

Third.—1. The length of the left radius was eight and three-fourths inches.

2. The length of the right radius was eight inches.

3. The length of the left ulna was about ten inches.

4. The length of the right ulna was about eight and one-half inches.

5. The circumference of the left wrist was about six and two-eighths inches.

6. The circumference of the right wrist was about six and one-eighth inches.

7. The transverse diameter of the left forearm just above the wrist was about one and seven-eighths inches.

8. The transverse diameter of the right forearm just above the wrist was about one and five-eighths inches.

Fourth.—1. The left hand was normally *abducted* on the forearm about 5 degrees.

2. The right hand was abnormally *adducted* on the forearm about 20 degrees.

3. The flexion, extension, adduction, abduction,

rotation, and circumduction of the right and left hands were about the same.

Fifth.—1. The head of the right radius was apparently displaced somewhat forward. This was more apparent when the fore-arm was extended.

2. The distance between the condyles of the left humerus was two and one-fourth inches.

3. The distance between the condyles of the right humerus was two and two-fourths inches.

4. The right internal condyle was at higher level than the left internal condyle.

Sixth.—1. There was no solution of continuity in the left ulna.

2. There was a solution of continuity in right ulna.

3. The upper fragment of the right ulna was eight inches in length.

4. The lower fragment of the right ulna was about three-eighths of an inch in length.

5. The lower fragment could not be very distinctly made out.

6. The distal end of the upper fragment could be moved to and fro, so as to make it very distinctly definable.

The following remarks may be made on the above facts of observation, namely:

1. The right fore-arm was displaced inward about forty degrees. This could be caused by a fracture of the internal condyle and a fracture of the ulna.

2. The *lateral* ginglymus of the right fore-arm could be accounted for by means of fracture of the ulna near the wrist-joint.

3. As the injured fore-arm could be fully extended, there was a loss of flexion to the extent of 20 degrees. This result could be explained by the injury to the radio-humeral joint, the fracture of the internal condyle, the fracture of the ulna and the subsequent conditions and relations of the several muscles acting on the fore-arm.

4. There was a loss of rotation in the right forearm of about 140 degrees. The right forearm could be supinated about 20 degrees more than the left forearm. This would leave the normal pronation of the right forearm only about 20 degrees. And the limited rotation of the right forearm was probably due to the injury to the radio-ulnar joints. The distal end of the upper fragment of the ulna seemed to be somewhat closely connected to the base of the radius; and the proper distal radio-ulnar joint was more or less obliterated.

5. The left radius was three-fourths of an inch longer than the right radius.

6. The left ulnar was one inch and one-half longer than the right ulnar.

7. The difference between the differences in the lengths of the corresponding bones of the fore-arms was three-fourths of an inch.

8. The right radius had grown somewhat more in length than the right ulna.

9. The osseous nucleus of the head of the ulna does not appear till about the fourth year. And if in this case there was an epiphyseal cartilage in the head of the ulna, it did not contribute to any extent to the growth of bone, for the distal fragment appeared to be very small, and the fracture occurred two years before the usual time of the formation of the epiphyseal cartilage proper.

10. We assume at present that the ulna was broken. The upper fragment of the ulna had grown in length by means of the cartilages at its base, articular and epiphyseal.

11. From some measurements I have made I have found the average length of the bones of the forearm in a female two years of age about five inches.

12. Hence, the ulna of the patient under consideration must have grown normally after the time of the injury about five inches. And if the ulna grew equally rapid at both ends, each end must have grown out two and one-half inches. This is a reasonable conclusion. But the right ulna did not grow as rapidly as the left ulna: Hence, the right ulna could not have grown in length at the base as much as two inches and one-half. There was no apparent reason why the base of the right ulna grew faster and proportionally larger than the rest of the injured forearm. And if the base of the right ulna grew just as fast as the rest of the injured forearm, it grew in length one inch and three-fourths. But the right ulna grew in length after the injury three and one-half inches. Let us leave out of the account the length of the lower fragment, which was one-half inch, and that would leave *one inch* in length of the right ulna unexplained by the growth of the upper end of the bone. But this could not have been: *Hence, the distal end of the upper fragment of the broken ulna must have elongated by growth.* It is denied: then the upper end of the injured ulna must have grown in length from three to three and one-half inches—which as before said is very improbable, nay, impossible. If the points above noted are well made: *It follows that bones can grow in length without articular or epiphyseal cartilage.* In fact in the ulna we are at present considering, it would appear that there had been *interstitial growth*; for it cannot be maintained that this injured ulna grew entirely by means of its upper end. *Hence, this case shows that bones may grow by interstitial additions.* And if this be so, it changes somewhat the question of exsection of the ends of the long bones of the young. For if a bone can grow interstitially, to cut off the ends of the bones of the young will not altogether arrest their growth. These considerations throw light on the question of interstitial absorption. And the fact, that the bones in a stump after an amputation will sometimes grow in length is confirmatory of the same conclusion. Further it may be noted, that *the fragment of the ulna in this case grew laterally by means of the periosteum.*

13. The condyloid end of the right humerus was one-fourth of an inch broader than the condyloid end of the left humerus.

14. In general there was atrophy of the right forearm, or rather there was some arrest of growth. It may be noted in this place that an injury may be a cause of a-symmetry of corresponding parts of the body.

The following conclusions may now be drawn, namely:

1. There was probably a fracture of the internal condyle, because of the limitation of the flexion of the forearm, and because of the increased width of the condyloid end of the arm—seeing that the forearm was at the same time in a state of atrophy.

2. There had probably been some dislocation of

the head of the radius, because of the fracture of the internal condyle, and because of the apparent forward prominence of the head of the radius.

3. *There had been a fracture of the ulna within one-half inch of the wrist-joint, because there was preternatural mobility at that point, and because the distal end of the upper fragment could be very distinctly made out.*

4. The distance of this fracture from the wrist-joint was about the same as the distance of an ordinary fracture of the base of the radius from the wrist-joint. The end of the fragment was "rounded off" and attached to the structures beyond by strong "ligamentous" tissues.

5. *There was permanent non-union of a fractured ulna.*

6. The injured limb was very useful, enabling the young woman to do all kinds of work. *Hence, she was advised to let the limb alone; as any operative procedure would no doubt take away some of the utility of the limb.*

7. *Further observations may show that bones can grow in length without the aid of articular and epiphyseal cartilage. That is, it may be more conclusively demonstrated that bones can grow by means of interstitial additions to their special structure.*

ORIGINAL ARTICLES.

PARTIAL DISLOCATION OF THE FOURTH CERVICAL VERTEBRA, DUE TO MUSCULAR ACTION.

BY
JOHN A. WYETH, M.D.

On the morning of March 7, I was summoned to see a lady, who, I was told, had injured her neck. The history of the accident was as follows: In the act of bathing, while standing with the neck twisted, (the face being turned sharply to the left), she had lifted the right forearm and hand over the right shoulder, and was sponging herself between the scapulæ. While in this position she was seized with sudden and intense pain in the neck, more especially the right side. On arriving about thirty minutes after the accident I found her suffering intensely; the neck was twisted to the left and immovable, and the face turned and looking over the left shoulder. Her left hand was grasping the right side of the neck over the fourth cervical articular processes. She complained that she could scarcely breathe and that there was a painful numbness running down the right arm. On running my finger down along the processes of this side I found there was an intense pain on pressure at the junction of the right articular processes of the fourth and fifth vertebræ. Seizing the head I carefully attempted to rotate it to the right, but the entire body turned with it. Feeling confident that there was a dislocation forwards of the fourth articular process of the right side, upon the fifth, I seized the head from behind, on both sides, placing each hand with the thumb under the occiput, and the fingers under the jaw and chin, and turned the head slightly to the left, then made strong extension and rotated to the right. The head turned into its position without any trouble, and the pain instantly ceased. I moulded a

shellac splint on the right side of the neck, and over the shoulder on the same side, and threw a figure of 8 roller around this shoulder and the neck. During the next two days there was considerable pain in the right arm and side, and along the track of the cord, which was relieved by morphia. The patient recovered fully in a week and has not since suffered. It is now more than three months since the accident.

Dislocation of a vertebra, without fracture, is, in itself, a rare accident, and a simple displacement by muscular contraction has, as far as I am informed, not been reported. I am fortified in the correctness of the diagnosis in my case by the following facts:

1. There was complete fixation and immobility of the neck, which was relieved by the successful reduction.

2. Interference with respiration, showing that the filaments of the phrenic were being pressed upon. Pain in the arm, due to pressure on those filaments of the fifth nerve escaping from the fourth intervertebral foramen which join the brachial plexus. Pain in the track of the cord, due to the slight pressure it received from an incomplete dislocation of the body of the vertebra. Entire disappearance of these symptoms at the moment of reduction.

3. That there was no fracture, was evident from the absence of crepitus and the rapid recovery.

4. The symptoms could not have resulted from rupture of muscle or tendon, because this would not have rendered the neck immovable, nor would the pain have disappeared so rapidly in case of rupture, where there would have been more extravasation and consequently more material for absorption.

A CASE IN THE PRACTICE OF DR. C. R. AGNEW IN WHICH THE SIGHT OF ONE EYE WAS SO IMPERFECT AS TO BE PRACTICALLY USELESS WITHOUT THE CONSCIOUSNESS OF THE PATIENT.

Reported by Dr. Wm. C. M.D., New York.

Incredible as it may seem that a person may be partially or wholly blind in one eye without being conscious of it, yet there can be no doubt of the fact that such cases do, from time to time, come under the observation of the ophthalmologist. I am sure that I have seen several such cases of which I neglected to make notes at the time, and therefore cannot report them.

In the *Medical Record* of September 28, 1878, I reported the case of a clerk, 42 years of age, who saw four times as well with his left eye as with his right, the refraction being uncorrected by glasses, and who had never been conscious that his eyes differed from one another in vision or in any other way.

I have now a much more remarkable case to report, a case in which the patient saw perfectly well with one eye, while his other eye was so blind as to be practically useless, except as it enlarged his field of vision, without any suspicion on his part, that he saw any better with one eye than with the other.

On the 21st of May, 1879, an intelligent, quick-

witted lawyer, 33 years of age, came to consult Dr. C. R. Agnew in reference to a pterygium which he had observed for the last ten years upon the nasal side of his right eyeball. This growth, he said, had increased very perceptibly during the last few months, and he thought it time to consider the question whether it ought not to be removed.

As is usual in such cases his eyes were put through a regular, routine examination. We found that the right eye, the one with pterygium, was normal in every other respect with vision $\frac{20}{20}$. Upon testing the left eye we found greatly to the surprise of the patient that its vision was only $\frac{3}{100}$, or $\frac{1}{33}$ of the sight of its fellow, eccentric, and not to be improved by glasses.

Upon examining this eye with the ophthalmoscope we found that there was no error of refraction, and that the cause of the great functional disability of the eye was a large plaque of choroidal atrophy occupying the region of the macula. This plaque was irregularly circular, about four times as large as the optic disc, richly bordered with pigment, and with large choroidal blood-vessels coursing through it in various directions. It was not very nearly approached by any of the retinal blood-vessels. The optic disc and other parts of the fundus were apparently healthy.

It seemed most probable, from the appearance of this atrophic plaque, and from the fact that there was no history of conscious trouble with this eye, that it was a congenital defect.

Here, then, we have the case of a gentleman of superior education, whose vocation had entailed a close use of his eyes from his youth up, who must have been trained to habits of close observation, whose attention had been constantly called to one of his eyes by a growth there for many years, and who had probably from birth been almost blind in one eye, and yet had not made the discovery until it was forced upon him by a routine examination.

HOSPITAL RECORDS.

THE PHILADELPHIA HOSPITAL.

SERVICE OF CHARLES K. MILLS, M. D.

(Prepared for THE HOSPITAL GAZETTE.)

FACIAL PARALYSIS, FOLLOWED BY SECONDARY SPASMS AND CONTRACTIONS.

R. S., æt. 46, a married woman, came under observation late in the winter. Three weeks before, without known cause, except that she was at times considerably exposed to the changes of weather, she suddenly became paralyzed on the left side of the face. Her menses had been irregular for six months, and she had not been feeling very strong for a year.

Examination showed complete paralysis of the muscles supplied by the external third of the facial nerve. The left side of the face was smooth. She could not wrinkle the left half of the forehead, nor close the left eye. The nose was drawn very slightly to the right, and the mouth in the same direction and upwards. She could not pucker the mouth. Her speech was somewhat indistinct, and,

when eating, food often lodged between the left cheek and the teeth, causing annoyance. The conjunctiva of the left eye was usually injected, and she complained frequently of pain and discomfort in this eye.

The velum palati and uvula were unaffected. She had no loss or disturbance of taste on either side of the tongue. Smell was slightly impaired. Hearing in the paralyzed side was normal, being neither abnormally acute, nor dull or lost, and she had no noises in the ear.

The muscles responded promptly to both the faradic and galvanic currents, and the response to faradism, which was used in the treatment, continued good.

Iodide of potassium was prescribed in doses of ten grains three times daily; and faradization with a current just sufficient to produce muscular contraction was employed every other day. Positive and progressive improvement took place, the patient gradually recovering power in all of the affected muscles. After six weeks of treatment, however, a slight twitching of the left angle of the mouth began to be noticed. In a few days, this angle of the mouth was drawn up almost constantly. The cheeks and lips began to be pressed against the teeth, and she complained of a band-like feeling around the paralyzed side of the mouth. She had in short, an irregularly distributed, but marked condition of spasm in most of the muscles recovering from the paralysis. Now and then a succession of rapid twitches would be noticed in the muscles about the angle of the mouth. Less frequently similar twitchings were observed in the orbicularis palpebrarum muscles, especially in its lower fibres. Any effort, under the influence of the will, to use certain muscles or groups of muscles of the left side, would cause a curious appearance of distortion and grimacing, owing to the irregular spasmodic actions that would ensue. When the mouth was pulled upwards and outwards, for instance, the eyelids would be pressed together and the digastric muscle would be called into play. The patient was constantly annoyed by an unpleasant feeling of "drawing." After this condition had lasted from one to two weeks the left half of the orbicularis oris and the zygomatic muscles began to feel hard and hypertrophied.

On the appearance of the spasmodic symptoms, the use of the faradic current was transferred to the healthy or non-paralyzed side and a weak galvanic current, uninterrupted, was applied to the zygomatic, orbicular and other muscles, which were the seat of the tonic spasm or contractures. Bromide of potassium and valerianate of zinc were administered internally and belladonna ointment was frequently rubbed into the face. Under this treatment the patient improved, and she was discharged much relieved, but not entirely cured, as *some* contracture still remained.

The secondary contractures and spasms observed in this case have been noted by me as occurring in varying degree in a number of cases of facial paralysis. They have been studied by Duchenne, Remak, Hitzig, Erb, and others. No very satisfactory explanation of their occurrence has been offered. Hitzig refers the symptoms to an abnormal

excitability of the medulla oblongata, which becomes developed in a still unknown manner, in consequence of peripheral facial paralysis. (Erb in Ziemssen's Cyclopaedia, vol. XI, p. 509). I believe with Erb that the condition is not one of "electrical muscle tetanus," induced by electric treatment, as it occurs in cases in which no electric treatment has been employed. Transient states of spasms in cases of this kind are by no means uncommon. Assuming the doctrine of the localization of motor centres in the cerebral convolutions to be true, it may be that the special cervical centres for various facial movements, temporarily quiescent during the existence of the paralysis, as recovery takes place begin to act in an irregular and abnormal manner.

Whatever may be the true theory of the production of these secondary spasms and contractures, experience has proved that they are best treated by the conjoint use of internal and external measures. The bromides and preparations of zinc, cicicifuga, hyoscyamus, arsenic, and similar articles, should be given with a view of quieting and controlling the nervous centres, while at the same time, the patient's strength is sustained by mild tonics and abundant nourishment. A weak, stable galvanic current should be used for its antispastic effect directly to the nerves and muscles. Mild faradization of the antagonistic muscles of the healthy side can also be resorted to, but it should be used with caution and not too often. Detmold's mechanical treatment of facial paralysis can be applied with advantage to the unaffected side with the view of preventing and controlling contractures upon the opposite side. This is carried out by taking a piece of tin wire, or some similar material, and bending it at both extremities, so that one end can be passed over the ear and the other hooked into the angle of the mouth, thus affording a support and preventing the drawing to the other side. Hypodermic injections of sulphate of atropia gr. 1-100th to 1-60th, using fine needles, can be thrown into the spastic muscles; and here, as in so many other cases of spasm, superficial applications of the white hot iron to the back of the neck, or over the muscles may prove of signal service. Cases of this kind sometimes obstinately resist all therapeutic measures.

TRANSLATIONS.

FOUSSIEAU'S CATAPLASM IN THE TREATMENT OF SUBACUTE AND CHRONIC ARTERITIS. DECATOY.

Take a sufficient quantity of bread (more or less owing to the size of the joints to be enveloped) cut into thin slices; remove the crust and soak the pieces about a quarter of an hour in water. The swollen pieces are then placed in a piece of linen and the water squeezed out until the mass seems but slightly moist. It is next placed in a water-bath and allowed to remain for three hours. A portion of the water is again pressed out and the whole is softened and kneaded for five minutes with camphorated alcohol. The dough is then spread out upon a piece of linen cloth large enough to cover the joint. At the edges the cataplasm should be at least one cen-

metre thick. Over the surface of the cataplasm the following mixture is poured ;

Camphora	7 parts
Extr. Opii	5 "
Extr. Belladonn.	5 "
Alcohol	q. s.

The dressing is then fastened on by adhesive strips and then covered with oil silk to prevent too rapid evaporation, and over the limb and joint a flannel roller is applied tight enough to exercise a comfortable compression. This is allowed to remain from eight to ten days and if necessary it is then re-applied.

Dieulafoy has tried this remedy with great benefit in a large number of cases and commends it highly to the profession.—*Centralblatt für Chirurgie*, May 3, 1879, p. 289.

HYDROPHOBIA SUCCESSFULLY TREATED BY THE INHALATION OF OXYGEN.

Two Russian physicians recently treated a young girl twelve years old who had been bitten through the skin by a mad dog. The wound had been immediately cauterized with lunar caustic and cicatrization was complete in eight days. Three days later the patient was attacked with diphtheria and paralytic aphonia. Seventeen days after the bite she was seized with convulsions. The immediate inhalation of three cubic feet of oxygen was practiced with such effect that in two hours and a half the patient was resting quietly and comfortably. Two days later the same symptoms supervening, the inhalation was again practiced for forty-five minutes when the convulsions ceased. Monobromide of camphor was prescribed for three weeks on account of a slight dyspnoea. A month later there was a slight atony of the muscles of the leg, but these symptoms gradually passed away, leaving no trace of the disease except a slight aphonia due to the effect of the diphtheria. In 1875 Drs. Paul and Josias treated a similar case with this same method, but the patient died, although the spasms were allayed temporarily by the oxygen.—*Gaz. des Hopitaux*, March 1879, p. 243.

DYSENTERY—ABSCSS OF THE LIVER MISTAKEN FOR PLEURAL EMPYEMA—MASSÉ.

As a result of a protracted dysentery from which the patient had suffered, a hepatic abscess was developed. The interference with respiration and the protrusion of the intercostal spaces was so extensive that a diagnosis of pleural empyema was made. It was determined to puncture the abscess, and a quart and a half of pus was evacuated. Later two quarts more were removed. The patient died seven days after the last operation. The autopsy showed that the abscess was in the right lobe of the liver, and its cavity was as large as that of an infant at term. There were two points of communication with the exterior, one in the sixth intercostal space made by the surgeon, and another a little

higher in the space which had opened spontaneously.—*Ibid.*, p. 243.

PIGMENTATION OF THE FACE IN ABDOMINAL TUBERCULOSIS.

M. Noël Gueneau de Mussy has noticed this pigmentation of the face to be such a constant concomitant of abdominal tuberculosis that he considers it a pathognomonic symptom, even when there are no physical signs to indicate the disease. These brown spots commence usually in the anterior portion of the temporal region and may spread from thence over the frontal surface and in advanced or severe cases the entire face may assume a mulatto color. The dorsal surface of the hands are often affected in the same way, and less frequently other portions of the cutaneous surface. Occasionally the pigmentation is so general that it assumes the character of Addison's disease. Dr. Mussy has also observed this discoloration in four cases of cirrhosis of the liver with ascites; and in one case of cancer of the stomach. He concludes that this discoloration indicates the invasion of more or less of the abdominal viscera with tuberculosis, and that it resembles Addison's disease in its pathogeny, which he argues is due to the irritation of the numerous filaments of the sympathetic converging from the suprarenal capsules and the abdominal viscera, toward the solar plexus.—*Dr. Brochin in Gaz. des Hopitaux*, March 15, 1879, p. 242.

NEWS ITEMS AND NOTES.

Remarkable Growth of Hair.—At one of his lectures delivered at the College of Physicians a year or two ago, Mr. Erasmus Wilson, of London, showed the photograph of a lady of 28, five feet five inches in height, whose hair when standing up enveloped her like a beautiful golden veil, trailing many inches on the ground. The longest hairs upon this lady's head measured six feet three inches and a half in length. Thirty inches is the full average length in women, a yard being considered a fine and unusual growth. This, therefore, is a very extraordinary length of hair—the longest, we believe, on record.

Dangers of the Uterine Sound.—Dr. C. Liebman, of Trieste, had the misfortune to perforate the uterine walls of two patients while making examination with Simpson's sound. The evil consequences were transient and trifling, but Dr. L. has resolved to abandon the introduction of the sound. From one hundred experiments on the cadaver he found that in about 20 per cent. the sound could be made to perforate the fundus with very slight pressure, while in some the uterus was sufficiently resisting to cause the bending of a Sims sound forced against the fundus.—*St. Louis Courier of Med.*


Medical Department of the University of the City of New York.—Dr. James L. Little, formerly of the College of Physicians and Surgeons in this city, also Professor of Surgery in the University of Vermont, has been appointed Clinical Professor of Surgery, *vice* Dr. Joseph W. Howe, resigned.

THE HOSPITAL GAZETTE.

A Weekly Journal of Medicine, Surgery
and the Collateral Sciences.

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EDITORIAL.

BARBERS AS DOCTORS.

There are certain intended public conveniences which soon degenerate and become public nuisances. A person of careful habits soon learns, by experience, perhaps, that however grand and attractive may be the visible surroundings, they are not safe places of resort, therefore, if possible, avoids them. Public baths, laundries and barber shops suggest themselves promptly as being in this category, well intended but poorly executed public conveniences. To most people they are not indispensable, therefore with the risk attendant upon their use, the patronage extended by such people is not to be justified in a flattering way; their love of ease outweighs all prudential promptings.

The feeling against public baths has been extant for centuries, as women are more considerate than men, and as a general rule they refuse to be attracted by the luxurious trappings of the bathing places designed for them. They will subject themselves to the cramping of a bowl or wash-tub bath rather than be subjected to contagion. Woman's opposition has seriously limited bath-house patronage. Public laundries, designed to relieve woman of a heavy work and drive a regular cause of commotion and ill-temper from the house, are so miserably conducted, so careless in their acceptance of trade, that a revulsion of sentiment concerning them is plainly manifesting itself. Whatever of objection is or can be urged against either of these, baths and laundries, can, with at least equal force, be urged against barber shops, and there is to be added the objections, which the flood of unsolicited and ill-considered advice intruded by barbers upon vic-

tims, always brings in its train. In this latter are to be found the considerations that make barbers particularly offensive to the medical profession, as well as doubly dangerous to mankind in general.

The requirements of the barber's task do not include intellectual vigor, nor skill of more than the most ordinary kind, nor preparatory training—nothing but an easily acquired ability to handle a keen-edged tool and to spread paste, is demanded by their work, mere mechanical training and practice. When one is endowed with a little taste, he far surpasses all his neighbors in gaining trade that he becomes a tonsorial artist, at least so styles himself. His work is of a menial character, and its limits are appointed, beyond which he should not venture. He soon forgets himself, however; such is always the case when inferiority is tolerated, even for service. The servant acquires a feeling of importance equal to that of his master, but not having the master's ability, culture and judgment, makes himself ridiculous by his assumption of superiority, appears the clown that he is, though dressed in regal robes. The barber, continually serving gentlemen of position and influence in his accepted calling, coming in close contact with their persons, touching not merely the hem of their garments, but their skin, is at once so swollen with pride that he leaves his former friends, disgusted with their manners, afraid of being contaminated by low associations, and apes the grander style; appears a veritable monkey of inflated proportions. Arriving at this stage, he is ready to prove his greatness, wisdom and experience at every opportunity, discussing state affairs from the confidential standpoint of his intimate friend, Bill Seward; tipping the wink for bets on the horse race as his chum, John Morrissey, gave it to him; and predicting rise and fall in stocks from private advice of Jim Fisk or Jay Cooke; supplementing all this display of wonderful knowledge by detecting a pimple on your face, which indicates a disorder or derangement of the vessels that supply the skin, &c., that he can thoroughly correct, promptly and without pain. He is more cunning in his plan of attack than wise in his opinions. Having seated you in his chair, fastened your head securely with a clamp, well-nigh choked your utterance by winding a towel about the wind-pipe, completed the stoppage of speech by bedaubing your face, mouth, and nose in particular, with a sufficiency of soap suds, he begins, and runs an unobstructed career of important gossip, glorifying himself, as he deliberately draws the glittering steel in close proximity to your throat if you dare to contract a muscle or move an eyebrow. He was a servant, but he is "boss" now. Just before releasing you from the terrible bondage he finds your weak

point, and his medical knowledge, generally valued at fifty cents for a small bottle, made by himself, is harked at you. If you quietly refuse to allow him to become your physician while still seated in his chair, he bides his time, and, after you leave it and are resuming your clothing, he informs the assembled multitude in loud tones of his opinion of your precarious health, its cause, and his remedy. His remarks are addressed to you, but for the multitude—alike the pretty speeches to the baby, for the older is never left to reach the mark. Your continued refusal and departure settles your position in life, so far as the barber's horn of fame can do you harm. If you have dandruff, or psoriasis, or eczema showing itself you are flooded with their sympathy, and besought with all the earnestness of a revival exhortation to save yourself at once with a dollar lotion especially prepared for your affliction.

Let any defect, blotch, scratch, bruise, or scar be visible, and your fate is certain; the barber's medical knowledge will be splattered over you before you leave his premises. Talked to death is esteemed a dreadful fate, and people generally avoid it, but in a barber's saloon the frequent approximation is astonishing.

Their skill, what little there is, is centered in being able to take their victim to the verge, and then, when hope is about to droop, save him by applying restoratives with an atomizer, an indispensable article of the shaving shop. Some victims have toughened under the practice, and bear the infliction, passing regularly into an insensible condition under the barber's attack, that they may enjoy afterwards the revivifying sensations.

Having been quiet under his manipulations thus far, it would seem but proper to expose the barber's treachery now. He is more ignorant than a prescribing druggist, more persistent and insolent. He has become, through his affectation and pretension, a public nuisance. His clean, stiff, blue-striped, cheap coat, immaculate shirt front and collar, well larded hair arranged in such magnificent style, waxed, pulled and twisted mustache, and well washed and powdered face, constitute all that there is to recommend his continuance as existence. Too indolent for any genuine labor, and too ignorant for thought-demanding engagements, he drops into this state of mentality to bide his nothingness. Here, by absorption, he becomes pompous first, and then dangerous.

We assert that not only are they dangerous when offering lotions, preparations, creams, etc., but they are so positively careless and ignorant that they have cursed the human race with a series of diseases which divides the honors of their calling by

appropriating its name, as the barber's itch. They surely cause these diseases, and then assume that they can and must cure them. It would be as appropriate for undertakers to go about providing corpses. How business would flourish under such a regime!

THE HOSPITAL GAZETTE REPORTS AND THE DEAN OF JEFFERSON MEDICAL COLLEGE.

We re-publish the following editorial from the *Louisville Medical News*. By it it will be seen that the course we have pursued in endeavoring to give our readers the best material, even in opposition to the will of the author, is endorsed by so high an authority as the accomplished editor of the *Louisville Medical News*. We have also received several letters commending our course and expressing reliance upon the reports appearing in THE HOSPITAL GAZETTE. We thank our friends for their kindness, and shall endeavor, in the future, as in the past, to merit their confidence.

CONCERNING LECTURES.

To judge from one or two Philadelphia expressions, it would appear that things are not what they seem in the way of published lectures. As we have noted on a previous occasion, the *Medical Times* declares that lecturers have been seriously misrepresented in reports made to medical journals; that "skeleton notes have been worked up at home by means of text-books," and that the reporter puts down what, in his opinion, ought to have been said rather than what was actually spoken. And then there is a direct complaint made by Professor Ellerslie Wallace, of the Jefferson Medical College, that in a report of one of his lectures upon *Placenta Prævia*, published in THE HOSPITAL GAZETTE, opinions were put into his mouth which he never held. Which is all very bad; but this is one of the several questions which have two sides.

We think it will be found upon the whole that lecturers have been much more benefited by reporters than they have been damaged by them. Not only have many valuable words been preserved through their instrumentality, but they have been put in a better condition to live. This has been the case not in medicine alone, but in other professions. The celebrated speech of William Pitt on the American War, which is to live as long as the history of English eloquence, was reported from "skeleton notes" by Johnson. Patrick Henry's appeal to arms, upon which all American orators cut their teeth, was set down from tradition half a century after its delivery by Wirt; and to come down to our own time, the *Congressional Record*, which so expensively preserves the Washington hush, corrects much grammar and leaves out many a hum and haw. Dr. J. F. Clark, who was for a number of years connected with the staff of the *London Lancet*, in his wonderfully readable Autobiography, says that there

are few lecturers, indeed, who can stand a *verbatim* report of what they say. Most of them are indebted to the reporter for the finish of their remarks as they appear in print. Sir Henry Thompson's lectures, we believe, were taken down *verbatim* as they were spoken, though these were "afterward shorn of the tautology which seems indispensable to the lecture-room," else they might not have presented their wonderful vigor. Lewis Sayre's orthopedic lectures are also said to be short-hand reports, but they, too, have no doubt been shortened.

Perhaps the most inaccurate of all reporters is the lecturer himself. If we would not shock the proprieties of the *Times* editor too much, we would like to lay him two to one—in sugar-coated pills, we will say—that no lecture which has appeared in his columns of which he knows the history was delivered as it appears, or in any way like it. Lecturers are particularly anxious to appear well in print, and are apt to overdo the matter. In their anxiety to put a polish on what they have said they refine away the personality and colloquial character of the remarks, upon which qualities the life of the discourse depended, and present in its stead an essay containing afterthoughts of what they should have said rather than what they actually did say.

Let us not therefore drive off reporters, but encourage the growth of this very useful body of men. If the lecturer do not like the manner in which he appears in print, let him enter a protest, if he choose; but nine chances to ten it will be found to be for matters as trivial as most of those for which corrections are asked by authors or editors. In these busy days the world reads with a glance. No one but the proof-reader and writer scans the periods.

It is strange how differently matters strike different people. We read Professor Wallace's lecture, about which complaint was made, with immense pleasure, partly from a personal interest in an old master, to be sure, but greatly from what it actually contains. It sounded to us very much like what we used to listen to years ago, and we strangely enough made the remark that it was a valuable fellow who thus recorded the words of Dr. Wallace, who can not be induced to record them himself.

We are inclined to be upon the side of the reporter in this affair. We declare that Dr. Wallace does not belong entirely to the Jefferson school, and a bird that can sing as well as he can sing should be made to sing so that the world beyond Sanson street can hear him.

SELECTIONS FROM JOURNALS.

ACTION OF DIGITALINE ON THE CIRCULATION.

The following are the results of Cavazzinni's observations, which have been published in the *Annales d'Omodei*, 1878, No. 245, p. 115:

1. The action of digitaline on frogs is manifested on the heart, particularly on the ventricle, by exciting the muscular fibres in proportion to the dose. 2. One or two drops of the solution, according to the season, accelerate the movement; six to seven

will bring on tetanic contractions of the ventricle. 3. The digitaline augments the tone of the cardiac fibres and lessens the number of the contractions, by reducing them to an infinitely small number. 4. The auricles are hardly, if at all, excited by the digitaline; the systolic contraction is not diminished in the same proportion as in the ventricle. 5. The diastole of the ventricle does not seem to be quickened, but rather subordinate to the action of the muscular fibres of the auricle. These fibres are often apt to enlarge considerably, which is followed by paralysis, so that it is obvious that they must remain inactive. 6. Some physiologists assert that the myocardium during the systole does not lose the blood which it contains; this assertion is untrue, as is proved from the pallor of the fibres which has often been observed. 7. Digitaline accelerates the peripheric circulation in proportion to the time and the quantity which has been employed for the experiment; the acceleration is due to the increased force of the impulse of the heart. When the ventricular contractions begin to slacken, and the ventricle becomes tetanic, the circulation diminishes first, and then ceases altogether. 8. The capillaries dilate, though not much, and the circulation may be accelerated, provided the drug does not prevent the ventricle from contracting rhythmically during the diastole. 9. It appears from the above that the action of digitaline is principally localized on the heart, and that its action on the vessels is only a secondary one. 10. It seems as if digitaline augmented in the respiratory substance the faculty of absorbing oxygen. 11. The opinion of the Berlin school that digitaline, when given in small doses, is stimulating, and exciting when in large doses, has not proved to be correct. This drug always stimulates the cardiac energy and dilates the vessels; if given in a toxic dose it produces tetanus and the rupture of the heart. 12. The action of digitaline may be summed up in the following words: It prevents the cardiac systole from growing too weak, it gives a new impulse to the peripheric circulation by increasing the *vis a tergo*, and dilating the capillaries; and finally it may be found very useful in affections which are complicated with insufficient oxidation of the blood, —*London Med. Record*, April 15, 1879.

TREATMENT OF WHOOPING COUGH BY ATROPIA.

Mr. Authur Wigglesworth, of Liverpool, began over four years ago to treat all cases of whooping-cough solely with the sulphate of atropia, from infants two months old to the adult. It required some little time to find out the average dose to be given with; but he now begins with 1-120th of a grain (or one minim in a drachm of water), in children from one to four years of age, either diminishing or increasing the dose as occasion dictates; and, except in very severe cases, only order it to be given once a day; but when the nightly paroxysms are very severe, he orders half the dose to be repeated about an hour before bedtime.

The results that follow its administration may be summed up thus: 1st. There is a steady diminution in the number of paroxysms. 2d. There is a diminu-

tion in the duration of the paroxysms. 3d. There is a change in the character of the "whoop," as if the vocal cords were not so closely approximated. Further, if the atropine is withheld the beneficial effects derived from it subside.—*Lancet*, April 12, 1879.

TREATMENT OF DIARRHŒA BY THE HOT-WATER DOUCHE.

Schorstein advises, in the *Wiener Med. Presse*, No. 49, 1878, the application of a douche of hot-water under strong pressure to the umbilical region, in cases of diarrhœa. The temperature is at first 50°, but may be raised to 72°. The duration of the application lasts from three to five minutes; after it the patient takes a hip-bath of 50° to 62°. This treatment is generally repeated not more than twice daily. Dysenteric diarrhœas combined with tenesmus, and dysentery itself, if not inveterate, are treated the same way. The effect is very rapid, and lasts much longer than opium treatment does; the pain is also calmed very quickly. The author has also found this hot douche answer in cases of colic caused by biliary calculus, and in many kinds of neuralgia, sciatica excepted, where it was desirable to remove renal calculi and gravel, or long accumulated fecal matter.—*London Med. Record*, April 15, 1879.

CHANCRES OF THE EYE.

Thiry (*La Presse Médicale Belge*, 4 Août, 1878,) believes that the ocular conjunctiva is rarely, if ever, the seat of chancre, and this he seeks to explain by the fact that the tears neutralize the virulent action of the virus. The author relates an interesting case. Patient, a man of twenty-three, had on the margin of the upper lid an ulceration involving the caruncle and the lachrymal canaliculi. The lid was swollen, and there was serious chemosis. A diagnosis of phagedenic chancre of the upper lid was made. The genitals showed no lesion. The patient admitted having been exposed, and remembered that four or five days thereafter he had noticed a painful pustule on the inner canthus of this eye. The ulcer was cauterized with acid nitrate of mercury, and in three weeks it was cicatrized. Later there was a swelling of the cervical glands and development of syphilitic cachexia, and for more than a year he was under treatment.

Another case is given of a woman, 56 years old, who presented herself with a binocular iritis, with a papular eruption of the face. On the upper lid was a firm, resistant and indolent swelling, and beneath it a small and incompletely cicatrized ulcer. The patient admitted that five weeks before there had appeared a small pimple on the upper lid—eight days later the tumor. Fifteen days later still came the affection of the sight. The patient's husband was examined, and found to have a chancre of the lip and others in the mouth. The writer goes on to say that a remarkable fact in favor of the unity of the virus of chancres was that the husband, who had chancres on the mouth and on the lip, showed no trace of syphilitic affection.—*Archives of Dermatology*, April, 1879.

INFLUENCE OF ANTISEPTIC TREATMENT ON INJURIES OF THE HEAD.

A paper by Professor Estlander, of Helsingfors, published in the first number of the *Nordiskt Medicinskt Arkiv* for 1879, contains valuable testimony to the beneficial influence of the antiseptic treatment. During the eighteen years 1860-1877, three hundred and forty-one cases of injury of the head were admitted into hospital under his care. He divides these into two series: one, from 1860 to 1869, in which the ordinary treatment was followed, and another, from 1870 to 1877, in which carbolic acid was used. The results are briefly as follows. In the first period there were one hundred and forty-five cases: viz., simple wound, seventy-nine recoveries and three deaths; wound laying bare the skull, thirty recoveries and seven deaths; wound with fracture of the skull and lesion of the brain, three recoveries and seven deaths; fracture of the base of the skull, four recoveries and four deaths. In the second or antiseptic period, the numbers were: simple wound, ninety-two recoveries and three deaths; wound with exposure of the skull, sixty-six recoveries and one death; fracture of the cranium and injury of the brain, eleven recoveries and two deaths; fracture of the base of the skull, six recoveries and five deaths. Six cases are deducted in the first period and ten in the second, because death occurred too soon after the admission of the patients for the influence of any treatment whatever to be apparent. It will be seen that the difference in favor of the antiseptic treatment is strongly marked in the case of wounds attended with exposure of the skull, the mortality in the first period being seven cases in thirty-seven, or very nearly 19 per cent.; in the second, one in sixty-seven, or about 1.5 per cent. In the cases attended with injury of the brain, the difference is also great; in the first period, three-fourths of the patients died; in the second, about one-sixth (two in thirteen) recovered. These results are more striking when it is observed that the death rate in fracture of the base of the skull, where, of course, antiseptic treatment is inapplicable, was very nearly the same in the two periods. Dr. Estlander says that the results of the antiseptic treatment correspond with his experience of injuries of other parts of the body. Before adopting the antiseptic method, he lost sixteen out of thirty-one cases of compound fracture of the bones of the limbs, and six out of ten cases of penetrating wound of the knee; while, since he has used antiseptics, he has had sixty-six cases of compound fracture with nine deaths, and twelve cases of wounded knee with two deaths.—*Brit. Med. Jour.*

CASE OF CHRONIC GLUTEAL ABSCESS.

J. A., aged 30, consulted me sometime ago. He had received a crush about three years previously, and had ever since suffered from pain in the thigh and lameness. On making an examination, I found the right gluteal region greatly increased in size, and with distinct fluctuation. I made a small deep incision, then, by gentle manipulation, removed at least two pints of pus. On the following day, I injected—as recommended by Dr. Craig of Edinburgh—thirty grains of chloral hydrate dissolved in two

ounces of water, and repeated the injection on the third day. In a week, all discharge ceased, and no difference could be distinguished between it and the other side. In less than a month, the man was able to resume work, being quite free from pain and lameness.—*William Denovan in Brit. Med. Jour.*

VOMITING OF PREGNANCY TREATED BY COPEMAN'S METHOD.

MRS ———, aged 25, primipara, was attacked with a fit of vomiting on Friday, March 18th when about six months pregnant. On the following Tuesday, the vomiting and retching became almost incessant, a lump of ice being rejected immediately it was swallowed. Her husband, a medical man, consulted four medical brethren, and carried out their recommendations carefully. She was nourished by means of enemata of Brand's essence of beef. Matters went on at the same rate for three weeks, till at last the rectum refused to retain the only means of support at our command, the patient by this time sinking from all the symptoms of a person sinking from inanition. As a last resource, the husband sent for Dr. Roberts of Portmadoc to bring on abortion. He came, and at once proceeded to carry out Dr. Copeman's treatment. The position of the uterus was normal; the posterior lip of the os was found hard and unyielding; it was with difficulty that an urethral bougie could be introduced at first. Before the operation was completed, about an inch of O'Beirne's tube could be passed. The effect was instantaneous, the stomach retaining the first thing administered. She improved daily. As the parts were so intensely resistant, it was necessary to repeat the operation two or three times, and always with the same satisfactory result. She is now fast regaining her strength, coming downstairs, and retaining hearty meals of meat, potatoes, etc., and likely to go on to her full time.—*E. Copeman, M. D., in Brit. Med. Jour.*

PNEUMOTHORAX.

DR. WALTER SMITH exhibited before the Pathological Society of Dublin the thoracic viscera of a man aged 22, who died four weeks after the supervention of pneumothorax of the left side arising in connection with pneumonic phthisis. In December, 1878, symptoms of pulmonary consumption set in; viz., cough, sweats, etc. On Sunday, March 3d, he was suddenly seized with intense pain in the lower part of the left side, attended with cough and a sudden accession of dyspnoea. He was admitted into the Adelaide Hospital on March 13th, and his condition then was as follows: The temperature was subfebrile; he had frequent and copious sweats and a troublesome cough; but the dyspnoea was not extreme, and the number of respirations seldom exceeded thirty in the minute. The area of the left side of the chest was much enlarged, as shown by a cyrtometric tracing. Tympanitic resonance extended an inch or more to the right of the sternum, and in a few days a loud succussion-

splash was elicited. In short, he presented all the evidence of an extensive pneumothorax of the left side. He gradually sank, and died on April 1st. At the *post mortem* examination, the upper lobe of the right lung was found to be consolidated, and the apex riddled with small cavities. There were a few pleural adhesions and three or four ounces of fluid in the pleural sac. The left pleural sac was greatly distended, the mediastinum being pushed over to the right of the sternum, and the diaphragm displaced downwards. It contained about three pints of greenish-yellow turbid fluid; and the pleura itself was reddened, thickened, and covered uniformly with a soft easily detached layer of fibrin. The lung was compressed into a spleen-like cake, and lay alongside the vertebral column. Inflation of the lung under water failed to discover the perforation which led to the pneumothorax. Some of the gas previously removed from the pleural cavity was tested, and found to consist chiefly of nitrogen and carbonic acid gas. The upper part of the left lung was consolidated, and exhibited a few very small cavities.

ACCIDENT IN THE PERFORMANCE OF INTERNAL URETHROTOMY.

Mr. Lund related before the Manchester Medical Society the particulars of a case in which, in performing an interior urethrotomy in an extremely tight stricture of cartilaginous hardness in the spongy portion of the urethra, a very fine urethrotome, made by Mr. Coxeter, gave way, and a part of the narrow steel blade was broken off, and, as was thought to be the case at the time of the accident, it was left in the urethra. This occurred in private practice in May, 1878; and, in December last, a precisely similar accident occurred to Mr. Heath, at the Infirmary, in operating for anterior internal urethrotomy for cartilaginous stricture of the spongy portion, with a small urethrotome made by Messrs. Mayer and Meltzer. Here, in attempting to withdraw the instrument with the blade expanded, the blade broke, and for the moment it was thought that the fractured extremity of it, about five-eighths of an inch in length, had been left in the urethra. Search was made by means of urethral forceps, and, by exploring with a probe, it was thought that the edge of the broken blade could be touched and even seized by the forceps. Yet, while this was being done, the broken piece of the blade was found to be closely impacted at the end of the groove of the urethrotome, into which it had fallen. Encouraged by this discovery, Mr. Lund proceeded to examine very carefully the urethrotome he had used many months previously, and to which the same accident had happened, and there he found the fractured extremity of the blade tightly pressed down into the extreme end of the groove. Mr. Lund suggested how desirable it would be, on any future occasion, if such an accident had occurred, not to seek for the broken end of the blade of the urethrotome in the urethra itself bedded in the stricture, but to see first whether or not it were caught in the instrument; and he explained how it was likely to be so placed by being surrounded on all sides by unyielding tissue at the moment of the fracture.—*Brit. Med. Jour.*

A CASE IN WHICH A BILIARY CALCULUS WAS REMOVED BY OPERATION FROM THE GALL-BLADDER AND A CURE RESULTED.

Mr. Bryant read notes of this case, before the Clinical Society of London. The patient was a single woman, aged 53, who was admitted into Guy's Hospital under Mr. Bryant's care in July 1878, with two discharging sinuses of three years' standing, following an abscess, which had been previously forming for two. At first, the sinus was laid open, and pus alone escaped; but subsequently, as bile flowed in quantities from the wound, an exploratory operation was performed, and at a depth of two inches, a biliary calculus, one inch long, turned out of the gall-bladder. Everything went on well after the operation; and although bile continued to escape from the wound for about two weeks, the parts quite healed in about four months, and the patient left the hospital cured. The author brought the case before the Society as an encouragement to surgeons to apply their art in like or allied cases, for he was well prepared to support the suggestion of Dr. Thudicum, made twenty years ago, "that gall-stones might be removed from the gall-bladder through the abdominal walls;" and he pointed out that, under certain circumstances, the operation was justifiable when the sinuses by their presence were setting up inflammatory and suppurative changes about the gall-bladder, without any obstruction to the bile-ducts, as well as in that more serious class of cases in which the cystic or common bile-duct was obstructed, and dropsy of the gall-bladder, with jaundice, complicated the case, as shown by the cases of Dr. M. Sims and Mr. G. Brown.—Mr. Hulke said there was no shadow of doubt as to the propriety of the treatment in Mr. Bryant's case. He simply rose to say that the whole question had been exhaustively treated in an early number of the *Mémoires de Chirurgie* of the year 1706. In a case there discussed, the stone was withdrawn by the forceps, and the author drew an analogy between it and the operation of lithotomy.—*Brit. Med. Jour.*

MAMMARY INFLAMMATION TREATED BY THE APPLICATION OF ICE.

For many years, I have been in the habit of treating all cases of inflammation of the mammæ occurring after parturition or during lactation by the continuous application of ice in bladders; and the results are very striking, as in no single instance where it has been used has the inflammation ended in suppuration. The ice should be broken up, and put either in a bladder or in one of the India-rubber ice-caps which are made for the head, and should be applied to one or both breasts directly there is any pain or tenderness. It should be kept on for from two to five days, except when nursing. The relief from pain is immediate, and the temperature sinks in a few hours. Where the patient does not intend to nurse, a small quantity of milk should be withdrawn by the breast-pump, if there be much milk- congestion. Ice materially aids the natural involution of the breast after parturition. It is not contraindicated if the skin be red and œdematous. In

those cases (and there are many) in which suppuration has taken place before they come under our notice, the best treatment consists in the application, as firmly and for as long a period as can be borne, of Martin's India-rubber bandage.—HENRY LANGLEY BROWN, West Bromwich, in *Brit. Med. Jour.*

MUSCLE-BEATING.

A somewhat absurd-looking, but nevertheless useful, little instrument has lately been brought under my notice by Messrs. Krohne and Sesemann, of Duke street, Manchester Square. It is the invention of a German orthopedist, M. Klemm, and is intended to be a substitute for rubbing and shampooing; one of the advantages which it is alleged to possess being that it combines active and passive gymnastics, the patient becoming, as it were, his own rubber. It consists of an India-rubber handle, from the upper part of which three sticks, or rather tubes, likewise of India-rubber, are made to branch off. The patient is directed to take hold of the handle, and to beat rhythmically with the tubes the part upon which it is intended to act. The instruments are made of different sizes and strength, according to the requirements of the case, and it is recommended to continue the beating for ten minutes at a time. M. Klemm, in a pamphlet, enumerates a great variety of diseases in which "muscle-beating" is said to be of advantage. There can be no doubt that capillary circulation is considerably influenced by this proceeding, and it may be used in all cases of sluggishness of circulation, unless there should be some general condition which would appear to forbid its employment. I have advised its use in cases of infantile paralysis, and for chilblains, and have satisfied myself that it may do good. Children appear to take it readily, and it seems certainly a gain that, where previously the mother had to spend half an hour or an hour in rubbing her little one's paralysed leg, she may now leave the business to the small patient himself, provided he be old and sensible enough to fustigate himself systematically. For habitually cold feet, the muscle (or I should rather say capillary vessel) beater is also no doubt useful; and in slight cases of muscular rheumatism it deserves a trial. I should, however, prohibit its use in cerebral paralysis, or wherever there may be some central irritation, whether cerebral or spinal. JULIUS ALTHAUS, M.D., in *Brit. Med. Jour.*

TWO CASES OF INTESTINAL OBSTRUCTION TREATED BY ABDOMINAL SECTION.

Communicated by T. CROFTON ARTHUR, M.D., Physician to the Infirmary, Leeds.

The discussion on Obstruction of the Bowels and its Treatment in the Medical Section of the Association last year has been provocative of much useful discussion. I venture to communicate two cases of obstruction of the bowels in which abdominal section was performed. The cases were related to me by Mr. Ockley, assistant to Mr. Dowse, of Skelmanthorpe, under whose care the cases were, and who operated successfully in one of them. The narratives are as follows:

CASE 1.—John E., aged 60, a tailor, came under my (Mr Dowse's) care on April 21st, 1877, at 4:30 P.M. On arrival, I found the patient suffering excruciating pain in the left side, and, upon inquiry, was informed he was suddenly attacked with the pain two days previously, about 2 P.M., after having eaten a hearty dinner. He described it as if something had fallen in his inside; it was accompanied with faintness and vomiting, but passed off after a short time. To-day the pain and sickness were more severe and continued. Temperature 100; pulse 82. The bowels were evacuated on the evening of the 19th; he had no motion since, although he had taken opening medicine (castor-oil, etc.), which had all been vomited back. On examination, there was a hard knotty tumor on the left side, high up close to the short ribs, which I thought might be either intussusception of the bowel, or perhaps some undigested food which had lodged there. I ordered ice, soda-water and milk, bismuth mixture with henbane, extract of belladonna, and powdered opium (of each half a grain); and a large linseed meal poultice in which was belladonna liniment with plenty of lard, to be changed every three hours.

April 22d. He was rather better, and had not so much pain. The tumor had shifted rather lower, and, as the bowels had not been relieved, I ordered an enema of water and soap. The other treatment was continued.

April 23d, 9 A.M. He was worse; his face had a very anxious, fretful appearance; there were more vomiting and pain, always in the same place; pulse 110, weaker; temperature 100 degrees. The tongue was rather furred for the first time. He was ordered iced brandy and soda water, and to continue the poultices, belladonna, etc. The pupils were normal. 3 P.M. At noon, stercoraceous vomiting commenced and continued every half hour. I gave an enema of clean water, which came away without the least sign of feces, and no smell whatever. I gave a hypodermic injection of morphia and advised the friends to send for Dr Kilner Clarke of Huddersfield in consultation. 10:30 P.M. Stercoraceous vomiting continuing and coming on every few minutes, the pulse being much weaker, Dr. Clarke proposed operation as the last chance, the abdomen was tender over the part where the pain commenced, and where the lump was felt, and was less swollen on the left side than on the right. He was passing very little urine.

The patient being well under chloroform, the obstruction was found at the commencement of the jejunum, in the form of a stony concretion about the size of a pullet's egg. As it could neither be passed forwards or backwards, it was removed through a longitudinal incision in the bowel (this substance was unfortunately lost). The bowel was so much thinned from pressure that, although it was well stitched with carbolized catgut (the glover's suture being used), it would not hold together. The patient died about 3 A.M., or four hours after the operation.

Query.—Would this case have done better if the operation had been performed sooner?

CASE 2.—George W., aged 56, a sailor, came under my care on August 21st, 1877, at 8 P.M. For about a month he had been suffering from constipation

and difficulty in passing his stools; when he did so, it was in short flat pieces like tape, and always with much straining. Sixteen or seventeen years previously, he had suffered from inflammation of the bowels; since then he had always more or less difficulty in passing his stools. For the last fortnight he had passed two stools. The bowels were very much distended, with clear tympanitic percussion all over, occasional paroxysmal cramping all over the abdomen, dulness over the left iliac fossa; and here the patient always pointed as the continual seat of his difficulty. I ordered belladonna, opium, nuxvomica, and calomel, in pills; bismuth mixture with prussic acid; ice; soda water and milk; and belladonna poultices frequently.

August 22nd, 10 A.M. He was much worse, stercoraceous vomiting having come on during the night; and as the patient was evidently sinking, I advised an operation. At 3 P.M. the bladder having been emptied, in which there was a small quantity of urine, the body was opened through the linea alba, and I passed the finger in the direction indicated by the patient, and I found two bands of lymph across the bowel close to the sigmoid flexure. On dividing these, the bowels were almost instantly relieved of a large quantity of accumulated feces.

August 23rd, 7 A.M. The patient was much better; pulse 92, temperature 100 degrees. He had two loose motions during the night. He was ordered to take a good nourishing milk-diet.

This patient made a good recovery from the operation, but died sometime afterwards from rupture of a blood-vessel whilst coughing.—*Brit. Med. Jour.*

CASE OF APHASIA CAUSED BY ANÆMIA.

A great many cases of aphasia have been lately published, their etiology having always been more or less clear. In most of these cases there had been either an apoplectic stroke or some traumatic lesion, either of the frontal bone or the anterior superior surface of the parietal bone, the underlying parts of the brain being always found much altered at post-mortem examinations. The case described by Dr. Koch in the *Berl. Klin. Woch.*, February 24, 1879, differs from those which come under notice generally, in that it does not originate in any lesion of the brain. It is brought on directly by hyperæmia of the brain, has been noticed when the patient was in an anæmic state, is transitory, and does not leave any evil effects behind it. The patient, a medical man, aged thirty-six, had always enjoyed good health. There was no predisposition to nervous disorder in his family, except, perhaps, a slight tendency to despondency inherited from his mother. From the time he had first begun to practice he suffered occasionally from hemicrania and a kind of dull headache, which generally, however, vanished towards the afternoon. During the last years he had been rather irritable and looked pale. That is all his previous history. One day towards the end of August, 1873, the patient had his first attack of aphasia. He had been vexed about something, when he suddenly experienced a slight feeling of giddiness, and numbness about the mouth and in several fingers, which was followed by the utter im-

possibility of pronouncing certain words. His tongue was not paralyzed, neither was there any loss of consciousness; he felt very much troubled about this new symptom, and shrugged his shoulders because he could not make himself understood by his wife. This phenomenon lasted for about a quarter of an hour; the patient lay down quietly without making any farther attempts to speak, and half an hour later he had recovered his powers of speech, and only felt a slight attack of hemicrania.

During the whole of the following winter the patient suffered more than ever from his hemicrania, but the next attack only came on in the spring of 1874, and was frequently repeated from that time, often recurring several times daily. The patient frequently could not find the right word in writing; the symptoms were always the same, and were repeated in the same series; the fit never lasted above half an hour. In August, 1874, the patient went to St. Moritz, in the Engadine, where he drank daily several glasses of chalybeate water and took baths. He felt much better there, had only one more attack at the beginning of his cure, and was even able to undertake several long excursions to the mountains. He remained well for the rest of the year, till the spring of 1875, when he again had a few slight attacks; they stayed away till September, 1876, when five more occurred; these were the last, and the patient has been free from them ever since. Two out of the five seem to have been brought on by chills, one of them being followed by a severe cold, whilst three others were, as usual, preceded and followed by headaches.

Remarks.—1. It is evident that this case of aphasia, together with the accompanying circumstances, was caused by anæmia; the good effect of the chalybeate waters seems to vouch for this. 2. The direct cause of every attack was evidently increased rush of blood to the nervous centres. This appears from the giddiness and headache, and that they were often brought on by chills, once even with the symptoms of angina. 3. The aphasia was evidently of central origin. The patient could not find the word he wanted, and therefore could not write it; in attempting to speak, he would use other words unintentionally. 4. Similar peculiar paralytical phenomena have often been observed to occur in chlorotic and hysterical patients. But there is neither chlorosis nor hysteria in our case, only a slight tendency to melancholy and anæmia, the constant recurring of the same symptoms for four years also shows that they cannot be classified under the head of hysteria, which presents the most changeable and various phenomena, as all medical practitioners know well. Occasionally, it is true, the symptoms would vary a little, *e.g.*, there was once or twice a slight feeling of formication in the fingers or around the mouth, but that is all. The sensation of formication in the fingers is a symptom of anæsthesia of the plexus brachialis, which has its seat in the centre in the spine, and is propagated into the plexus brachialis; the aphasia is a symptom of a transitory psychical weakness in the centre of the brain. This curious case might perhaps be explained by saying that a sudden rush of the blood to the brain and spine, owing to different circumstances, met on its way

have constantly met the same weak portions of the brain or coats of the vessels, which could not resist the increased pressure, and thereby gave rise to the symptoms detailed, whilst healthier portions of the brain or vessels were either not affected by the rush of blood, or did not suffer beyond the symptoms of headache or vertigo.—*London Med. Record*, April 15, 1879.

PROGNOSIS IN INFANTILE PARALYSIS.

In a clinical lecture delivered by Prof. JULES SIMON (*Gaz. Méd. de Paris*, Jan. 11, 1879) at the Hospital for Sick Children, the following points regarding prognosis are worthy of notice. Generally speaking, this disease leaves behind it a greater or less degree of paralysis. In a well-marked case, which has lasted four or five weeks, the cure will never be complete. But this persistent paralysis should not justify us in always giving a grave prognosis. For, though it may be always apparent to the skilled observer, the paralysis may disappear sufficiently to escape the notice of all others, and in other cases it may be remedied by orthopædic apparatus. M. Simon considers that there are three periods in the malady, in which the prognosis may be given in different terms. Quite at the outset, it being impossible to see the result, prognosis must be guarded and general. Time is the main element in prognosis now. In the second period, more precision is possible in prognosis. If the paralysis tends rapidly to improve, the prognosis is very serious; but if it persists and spreads, there is a fear of muscular atrophy, fatty degeneration, and consecutive deformity. If the paralysis is soon accompanied by atrophy, *i.e.*, in from ten or fifteen days to three weeks, cure is impossible, and grave deformity will remain; but if the atrophy come on slowly, the disease will, at least to a great extent, get well. In other cases, we are in presence of the accomplished fact. The patient is seen in the stage of deformity of infantile paralysis; there is atrophy and shortening of the limbs or club-foot. But even in these cases much may be done to justify a not altogether unfavorable prognosis by the judicious use of orthopædic apparatus. The etiology of infantile paralysis is very obscure. It is rarely seen before the age of six months, or after three years. M. Simon has seen cases which began at the ages of 4, 7, 7½, and even 12 years; but these are exceptional. Sex appears to have no influence. The occurrence of dentition and diarrhoea have been credited with it; lastly, *cold*, and especially staying in a damp place, have appeared to M. Simon to have been the cause in some cases he has seen, so that there would seem to be a rheumatic infantile paralysis.

In 214 children under one year, among whom 41 were within a month, and 17 within a day old, these last evinced the patellar tendon reflex very markedly. The Achilles-tendon reflex was not fully brought out in all of the cases of children within one year old; but the patellar reflex was marked in nearly all. The author thinks that this phenomenon is a reflex one, for the distinctness of the symptom decreased with advancing age; although according to Soltmann, the excitability of the peripheral nervous system gradually increases. This in-

creased excitability is compensated for by the decreased tendency to reflex phenomena.—*London Med. Record*, April 15, 1879.

GLOSSOPHYTIS.

DESSOIS is of opinion (*Thèse de Paris*, 1878): 1. That the black hue of the tongue and hypertrophy of the papillæ of the tongue are always connected with the presence of a vegetable parasite. 2. That this coloring must be ascribed to the fungus, from which it spreads to the long epithelial sheaths of the papillæ. 3. That the hypertrophy of the papillæ, which exists more or less before the affection breaks out on the tongue, and which proves a fertile soil for the parasite, is principally due, at a later period, to the irritation caused by this cryptogam.—*London Med. Record*, April 15, 1879.

CORRESPONDENCE.

ERRATUM.

Editor Hospital Gazette:

DEAR SIR: Permit me to correct an error of the reporter of my lecture, published in your journal of June 21st.

The first patient presented to the class, whose life was saved, as supposed, by venesection, did not enter the hospital with pneumonia, but with acute pulmonary oedema. The bleeding had reference to that condition.

Yours truly,

A. FLINT.

HOSPITAL FORMULARY.

The following are standard prescriptions used in the public institutions in New York. We shall give the complete list, giving this week, miscellaneous formulæ. The abbreviations used are O. D. P. (Out-door Department of Bellevue Hospital), Inf. H. (Infant's Hospital), H. I. H. (Hart's Island Hospital), B. H. (Bellevue Hospital), C. H. (Charity Hospital), Ins. As. (Insane Asylum.)

194. Battery Fluid.

("CATTERY FLUID.")

Mix 5 pints of water with 40 fl. $\frac{1}{2}$ of commercial sulphuric acid; pour the mixture upon 2 lbs. of coarsely powdered potassium bichromate placed into a capacious vessel; stir for 5 minutes; then add 10 pints of water, and when the mixture has become cold, add 25 fl. $\frac{1}{2}$ more of sulphuric acid.

195. Aqueous Solutions for Convenience of Dispensing.

These solutions should not be kept ready made, except when there is a constant and steady demand for them, so that they will have to be renewed frequently. They are not all saturated, the strength given being that established by long custom.

Acid. Carbolic.....	1 part in 20 parts	
" " crudum		
(for disinfecting)....	1 " " 300 "	
Alumen (Ammonia-		
Alum).....	1 " " 12 fl	oz
Ammonii Carbonas...	1 " " 4 fl	oz
" Chloridum		
(Murias).....	1 " " 4 fl	oz
Chloral (Chloral hy-		
drate).....	1 " " 2 fl	oz
Cinchonæ Sulphas.(+)		
Acid. Sulph. dil)....	1 " " 2 fl	oz
Ferri et Quiniæ Sul-		
phas.....	1 " " 2 fl.	oz
Magnesiæ Sulphas....	1 " " 2 fl.	oz
Potassii Acetas (near-		
ly).....	1 " " 1 fl	oz
Potassii Bicarbonas...	1 " " 4 fl.	oz
" Bromidum...	1 " " 4 fl.	oz
" Chloras.....	1 " " 16 fl.	oz
" Iodidum.....	1 " " 1 fl.	oz
Quiniæ Sulphas(+ Ac.		
Sulph. dil).....	1 " " 2 fl.	oz
Sodii Bicarbonas.....	1 " " 12 fl.	oz
Zinci Acetas.....	1 " " 4 fl.	oz
" Sulphas.....	1 " " 4 fl	oz

196. Fehling's Solution.

(REAGENT FOR GLUCOSE.)

Dissolve 90.5 grs. of copper sulphate in 1½ fl. oz. of water. Dissolve 364 grs. of Rochelle salts in 4 fl. oz. of solution of soda, spec. grav. 1120.

Add the first solution to the second, and make up the bulk with water to 5 fl. oz. and 473 minims, or practically to 6 fl. oz.

220 minims correspond to 1 grain of glucose.

The same formula according to the decimal system:

Dissolve 34.639 grammes of copper sulphate in 200 cub. centim. of water.

Dissolve 173 grammes of Rochelle salts in 600 c. c. of solution of soda, spec. grav. 1120.

Add the first solution to the second, and make up the bulk to 1000 c. c.

10 cub. centim. correspond to 0.05 gramme of glucose.

As this solution, when made, does not keep long, it is furnished from the General Drug Department in two portions:

a. *The Rochelle Salt Solution*.—364 grains of Rochelle salts are dissolved in 3 fl. oz. of soda solution, spec. grav. 1165. To this is to be added, only when wanted:

b. *The Copper Solution*.—90.5 grains of copper sulphate, dissolved in 3 fl. oz. of water.

Equal measures of the two solutions are to be mixed together by pouring the copper solution into the Rochelle salt solution.

220 minims of the mixture correspond to 1 grain of glucose.

197. Elixir Simplex.

℞ Spiritus Aurantii (1 in 10)...	fl. $\frac{1}{2}$ 2
" Cinnamomi (1 in 10)...	m 10
Alcoholis.....	fl. 4
Syrupi.....	fl. 6
Aquæ.....	fl. 6

This Elixir may be made the vehicle of various remedies which have an unpleasant taste, or are otherwise not readily taken. This form of administration, however, should be used *very sparingly* and judiciously to prevent patients acquiring a taste for "cordials" and alcoholic beverages generally.

198. *Lead's Solution of Quinia.*

R Quinia Sulphat.	gr. 80
Aque fl.	2 1
Acidi Sulphur. dil.	q. s.
Heat to boiling and add	
Acid. Carbolic gr.	5

For Hypodermic use.

199. *Liquor Chloroformi Co.*

(SQUIBB'S FORMULA FOR "CHLORODYNE.")

R Chloroformi purit.	fl. 1
Aetheris fort.	fl. 1
Alcoholis fort.	fl. 4
Syrupi fasci.	fl. 4
Ext. Glycyrrh. pulv.	2½
Morphiæ hydrochlorat.	gr. 8
Oil. Menthe Piper.	m 16
Acidi Hydrocyan. dil. (2%) .	fl. 2
Syrupi.	fl. 17½

Dissolve the morphia and oil of peppermint in the alcohol; mix the chloroform and ether with this solution. Mix the liquorice with the syrup and add the molasses. Shake these two mixtures well together; lastly add the hydrocyanic acid, and again shake well. Dose: 5 to 10 min. or 10 to 20 drops. Always shake the mixture before using.

200. *Solutio Ergotini (C. H.)*

(ERGOTIN SOLUTION FOR HYPODERMIC USE.)

R Ergotini.	gr. 36
Glycerinæ aa	m 108
Aque aa	m 108

Mix.

201. *McMann's Elixir*

In place of this nostrum there has been adopted into the U. S. Pharm. a formula for

LINCOLNIA OPI DEODORATA.

This preparation, as furnished to the hospitals of the department, is assayed and adjusted to the strength of 4 grs. of morphia in 1 fl. ℥.

202. *Lister's Antiseptic Treatment.*

a. *Before and during Operation.*

1. Carbolic Acid Spray.—Steam passing through a solution of 1 part of carbolic acid in 30 parts of water. As it issues from the jet, the solution contains about 1 part of acid in 40 of water.

2. Sponges, hands of operators, etc., dipped in solution of carbolic acid: 1 in 20.

3. Instruments covered with oil containing 1/10 part carbolic acid; some are dipped into or kept in watery solution: 1 in 20.

4. During intermission of spray, the wound is covered with a cloth dipped in carbolic acid solution: 1 in 20.

b. *After Operation.*

1. A strip of lint soaked in an oily solution of carbolic acid (1 in 10), or a pure rubber drainage tube, similarly treated, is left hanging from the wound during the first (and if necessary following) days. Either of them are cut off flush with the edge of the wound.

2. Over this is placed the Protective, into which a small hole is cut, corresponding with the end of the drainage tube. The Protective consists of a layer of oiled silk, coated on both sides with copal varnish and afterwards brushed over with dextrin, which latter enables it to become uniformly moistened when dipped into solution of carbolic acid (1 in 40). It is thus immersed just before being laid upon the wound, and is intended to prevent irritation which would be caused by the actual contact of the antiseptic dressing with the wound.

3. Two or three layers of gauze dipped in a watery solution of carbolic acid (1 in 40) are next applied. Then

4. Seven layers of the Antiseptic Gauze, being a cotton fabric of open texture impregnated with a mixture of 5 parts resin, 7 parts paraffin and 1 part carbolic acid.

5. Over this is applied the Mackintosh, which is about 1 inch less in size than the gauze.

6. Then another layer of antiseptic gauze is applied, and finally

7. Carbolyzed bandages, sufficient to retain the dressings, etc.

204. *Solutio Extracti Ergotæ.*

R Extracti Ergotæ e fluido.	gr. 60
Aquæ q. s. ad.	m 300

The extract of Ergot is made by evaporating 5 parts of the Fluid Extract carefully to 1 part, according to the method proposed by Dr. Squibb. The resulting extract is almost entirely soluble in water. The solution should, however, be filtered, and enough water passed through the filter to make up the bulk to 300 minims. This is a watery solution, representing ergot minim for grain.

205. *Liquid Pepsin.*

R Pepsini.	gr. 64
Aquæ fl.	2½
Acidi Hydrochlorici.	fl. 1½
Glycerinæ fl.	1½

Mix and filter.

206. *Thompson's Tonic (B. H.)*

R Ferri et Ammon. Cit.	3 1
Ammon. Carbonat.	gr. 30
Tr. Gentian. Co.	
" Quassia. aa	fl. 2
Syrupi.	fl. 1½
Aquæ q. s. ad.	fl. 8

Mix. Dose: a Dessert-spoonful.—(Dr. W. H. Thompson.)

207. *Dobell's Solution (O. D. P.)*

R Acidi Carbolic.	3 1½
Sodii Biborat.	
" Bicarbonat. aa	2
Glycerinæ.	fl. 3
Aquæ q. s. ad.	fl. 2

Mix. For External use.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of *The Gazette*, and are favorably impressed with the character and interest of the publication, should at once count the amount for a year's subscription. We cannot undertake to supply back numbers, but will, in the future, send a new number in place of the entire edition each week. We ask every member of the profession to receive this number, to give it to his neighbor, a treat for the year, and to treat all who favor us by a donation, still certainly obtaining their subscription thereafter. All we ask is a trial.

LECTURES.

CLINICAL LECTURE ON EPITHELIOMA OF THE PENIS.

Delivered at the Good Samaritan Hospital, Cincinnati.

W. W. DAWSON, M.D.

Professor of Surgery in the Medical College of Ohio, Surgeon of the Hospital.

Reported for the Hospital Gazette by Dr. J. S. CROFT, M.D., House Surgeon.

GENTLEMEN:—The case that I show you to-day is one of carcinoma of the penis, a disease that is by no means uncommon. Were we gifted with unerring powers of accurate diagnosis, I venture to say that cases of this kind would rarely, if ever, present themselves to us in this stage of the disease, for I make bold to say that I consider these cases entirely curable, if the knife is used early. And, indeed, where the lesion has existed for some time without any perceptible involvement of the inguinal glands, a cure has been effected by the prompt and free excision of all the cancerous mass. In cases like this one, however, where the glands are all involved, and the organ extensively diseased, a cure by the knife, or, indeed, anything else, whether used externally or internally, is out of the question. You will see that my teaching to-day in this case is in exact consonance with what I have frequently taught you. I am daily coming to look with more faith and favor upon the theory of the local origin of cancer, as taught by Billroth.

If the system is already poisoned by this, which was once a purely local lesion, why is an operation at this stage so often performed? With the hope of curing the disease? No. The one object is to take away a foul, offensive tumor, to relieve the pain, which is sometimes intense, and so shape the stump and urethra as to do away with the possibility of mechanical retention of urine. We thus possibly prolong life a little, and certainly make it, while it lasts, less painful and more bearable. As regards the retention of urine: You see in this case that the orifice of the urethra cannot be found, so deeply imbedded is it in the diseased mass; possibly it is entirely destroyed. Obstruction to the outflow of urine is liable to take place from very slight causes, and not knowing where to enter the catheter, we would have a very unpleasant complication. The history of the case is as follows:

A. G., married, et. 52, Indiana, farmer, has been a large, strong man, and has never suffered from any serious illness except this. Has been married twice, his second wife being alive. His children are all alive and healthy. Has never had specific trouble. Was admitted to the hospital as a private patient on March 1st, 1879.

His present trouble commenced sometime in July, 1878. He then noticed a red spot on the mucous surface of the prepuce. Phimosis soon took place, and although unable to see the spot, he could distinctly feel a small, hard lump beneath the skin of the prepuce at that point.

The lump enlarging, he applied to a physician, who made a slit in the thickened and elongated prepuce, and cauterized the sore. It now took on rapid growth, and gave him considerable pain. In about eight months he noticed some enlargement of the inguinal glands. There has always been considerable discharge from the sore, and of a disgustingly pungent odor.

On admission, the tumor was found to be as large as a walnut, the adjoining skin being ulcerated, and the glands in the groins hard and nodular, one of these as large as a hen's egg. Patient was emaciated and anemic; appetite very poor; great pain in tumor and down right leg, especially at night; pain of a darting character and so severe as to awaken him and cause him to cry out. The offensive discharge, under the microscope, appeared in no way different from ordinary pus.

March 20th, 1879. Growth progressing, edema increasing. Considerable pain in the lumbar region. Has some difficulty in passing water. Opening of urethra not visible. Has been somewhat delirious.

I shall now proceed to amputate this man's penis. Most of your works on surgery will tell you to take the end of the organ in your left hand, and with one sweep of the knife in your right to slice off the diseased portion. This is not the operation I prefer. As you see I cut through the skin all round, retract it, and then with the ecraseur cut through the body of the organ. I make my operation far enough back if possible to avoid all diseased tissue. By using the ecraseur there is very little bleeding, whereas profuse hemorrhage often occurs after the use of the knife, when the patient is in bed and recovering from the ether and the shock. Having stitched the edges of the urethra to the skin—the urethra being slit sufficiently to allow a free opening—the operation is complete. There are various modifications of this operation, all, however, having in view the keeping open of the cut end of the urethra, it being sometimes closed by the contraction of the healing and healed tissues. Dr. David Cheever, Professor of Clinical Surgery in Harvard University, describes his method of operating in the ARCHIVES OF CLINICAL SURGERY for July, 1877, as follows:

"A piece of tape was tied tightly around the root of the penis. The skin was moderately retracted by the left hand. With a narrow, straight bistoury the penis was transixed between the cavernous and spongy bodies. The knife then cut downwards, parallel with the penis for $\frac{1}{3}$ of an inch, and then cut outwards and downwards across the spongy body. Re-entering the knife at the first incision, it was then made to cut across the cavernous bodies, directly upwards, the tape preventing bleeding. We now had a stump where the spongy portion containing the urethra projected $\frac{1}{2}$ of an inch further than the upper half of the stump, made up of the cavernous bodies. The object of this is to leave the urethra longer than the stump. The urethra was now

small self-detracting with scissors, so as to make two flaps. A suture was passed through each flap, and drawn through the skin, but not drawn up. The flap being taken off, bleeding vessels were secured by ligature, and many bleeding points of the cavernous bodies were also tied. The flaps of urethral mucous membrane and the skin were now drawn together and tied. This covered the whole stump with skin, and as the healing contracted the parts drew open the urethra like a tunnel, and prevented any contraction of the urethral orifice, which is the greatest trouble after the old method of amputating the penis."

Now, a few facts regarding this disease. Cancer of the penis is, I believe, almost always epithelial, and it behaves as epithelial cancer does in other parts of the body. It usually occurs after middle life, although one case is recorded where the patient was but 18 years of age. The duration of the disease, when unmolested, is usually less than twelve months.

The diagnosis as a rule is easy, for the patients seldom seek advice until the disease is well advanced. This is the more apt to be the case, as it usually attacks persons of the lower classes, who are slow to consult. In the early stage it may be confounded with either hard or soft chancre, but usually the former. The results of local treatment assist in making a differential diagnosis. If the little hard, nodular tumor, with its ulcer, scabs over, sheds the scab, scabs again and again crusts over, meanwhile enlarging in spite of all treatment, you have good reason to believe it to be an epithelial cancer, and should lose no more time in medication, but proceed at once to its removal.

ORIGINAL ARTICLES.

CASE OF UNUNITED FRACTURE OF THE TIBIA OF TWELVE YEARS' STANDING; PRESERVATION OF A USEFUL LIMB.

WILLIAM S. FORBES, M. D.,

Dean of the Faculty of the Jefferson Medical College, Senior Surgeon of the Jefferson Hospital, &c.

Read before the Philadelphia College of Physicians.

I bring this man before the college for the purpose of showing the Fellows that he has preserved a very useful limb, though his fractured tibia has failed to become consolidated.

His case is as follows: a capitalist's son, 36 years of age, and in full health. He came into the Episcopal Hospital three weeks ago on account of an ulcer on his leg. His ulcer is now well, and, before leaving the hospital, I have asked his permission to present him for examination here to-night. He has, as you will observe, an ununited fracture in the middle of the right tibia; there is no bone thrown out from the upper or lower fragment. The line of fracture is quite a transverse one, and there exists a short, dense, fibrous deposit between the two fragments, which holds them closely together, so that while there is an appearance of consolidation, yet there is motion between these fragments to a limited extent. He can walk about with but a very slight limp, and

with entire freedom from pain, having no support from splint or bandage, and rarely using a cane. He has often walked from ten to fifteen miles a day, and has several times carried packages weighing nearly fifty pounds from the upper part of Richmond down to our Navy Yard, a distance of nearly five miles, and then has returned with them, walking the entire distance. He says that the only feeling of discomfort he experiences is that, after walking long, there is a feeling of something pulling at the outer side of his knee. On pointing out the locality, I found it to be over the superior articulation of the fibula with the tibia. In connection with this indication, I find that his fibula was not broken at the time of his accident, and that it serves as a splint to his broken and still ununited tibia. Manifestly the fibula assists to support his superincumbent structure, and hence the sensation of pulling at the upper tibio-fibular articulation.

The patient's accident happened just twelve years ago. In a gale of wind, off the Delaware Capes, he was struck by the end of a broken rope in the middle of his leg. The soft parts were cut to the bone, and the extremities protruded. Three days after his accident he entered the Pennsylvania Hospital, and remained there for fourteen months. He then left the hospital for the country, some twenty miles distant. He was wearing at this time tin splints around the leg, and moved about in a rolling chair.

Three years after the accident he laid aside his splints and got out of his chair, and, after using a crutch for a short time, abandoned it for a cane. A little over three years after his accident he went to sea as the mate of a vessel, and has never since been laid up or disabled in any way. He has never been the subject of syphilis, and has always been in the enjoyment of excellent health. Although this is the twelfth year since this man's accident, there is no change in the limb, nor in his capacity to walk on it, since he abandoned his crutches, nine years ago. The tibia is no larger and no smaller, apparently, than an ordinary, healthy tibia. Just at the line of fracture, and a little above and a little below the line, the bone is covered by a dense, fibrous tissue, serving as a stay-ligament to hold the fragments in apposition. This ligament is only around the false articulation, and performs the part of a dense capsular ligament to the two fragments of the tibia. It is made very tense when the patient stands on that leg or walks.

I cannot discover that the bone is much shorter than its neighbor of the opposite side. The affected extremity is just half an inch shorter than the sound one, and this shortness no doubt, to a great extent, depends upon absorption of the extremities of the fragments of the tibia. The fibula of this side, which was not broken, but which is attached by ligamentous structure to the extremity of each fragment at the seat of the ununited fracture, is perfectly healthy in every respect. It is not bent or curved, although the feeling of "pulling," which the man feels after a long walk, shows that this fibula assists somewhat to support the body. And, although this ununited fracture of the tibia has existed twelve years, and the limb has been well used for nine years without any artificial support beyond the occasional

use of a cane, the neighboring tibia is not enlarged to any perceptible degree. In this respect this fibula differs from the one to be found in the museum of St. Thomas' Hospital, spoken of by Mr. South, and mentioned by Dr. Norris (see Contributions to Practical Surgery, p. 66), in which the increase in size was great, the bone having performed the office of the tibia in supporting the body.

The occurrence of ununited fracture in this case cannot be satisfactorily accounted for. The man had no taint or vice of system. He had enjoyed, and has continued to enjoy, apparently excellent health. His appetite was good, and he appropriated his food; and he received proper treatment at the hands of excellent surgeons. There seems to have existed in this man what Sir James Paget has heretofore observed: "A simple defect of formative power; a defect which cannot be explained, and which seems the more remarkable when we observe the many changes which may at a later time be effected, as if to diminish the evil of the want of union." No other one of his bones has ever been broken.

CLASSIFICATION AND INVESTIGATION OF MALIGNANT INTERMITTENT FEVERS.

JOSEPH JONES, M.D.

Professor of Chemistry and Clinical Medicine, Medical Department, University of California, Visiting Physician of University Hospital, New Orleans.

The forms of malignant intermittent fevers are numerous, but are all attended with congestion of one or more vital organs, which may endanger the life of the patient, and which may pass into actual inflammation, attended with effusion of plastic lymph, serum or blood.

The nature and effects of the malignant paroxysm will depend upon various causes, as the state of the constitution of the patient, peculiar idiosyncrasies, pre-existing diseases, the effects of diet and occupation, the composition of the blood, and the functions of the organ or organs involved.

I. If the cerebro-spinal system is chiefly affected the paroxysm may be characterized by delirium, coma, convulsions and tetanic spasms, hence some writers have distinguished the *comatose*, the *delirious*, the *convulsive* and the *tetanic* varieties of malignant intermittents.

II. If the lungs or the pleura be primarily and chiefly involved, the difficulty of breathing, syncope, capillary obstructions, and excruciating pains in the pleura, lungs and diaphragm may characterize the paroxysm.

III. In a third form the heart appears to be chiefly affected, either directly or through the cerebro-spinal and sympathetic nervous systems. This so-called *cardialgic* variety is marked by excessive pain at the epigastrium, either continuous or intermittent, intense suffering, great anxiety of countenance, vomiting, and sometimes general spasm of the muscles.

IV. In a fourth form the abdominal viscera, the peritoneum, the stomach, small and large intestines, the liver, the kidneys, may one and all be involved, giving rise to the so-called *peritonitic*, *gastric*, *choleric*, *disenteric*, *hepatic* and *renal* forms of malignant intermittents.

V. In a fifth form, known as *typhoid* (*typh*), the cold stage is unusually protracted, there is great oppression at the chest and abdomen, restlessness and prostration of nervous and muscular power.

VI. When from any cause, as bad diet, excessive exposure to cold and wet, the continuous use of salt meat, or the prolonged action of the malarial poison, or by the introduction of certain parasites, as the *bilharzia hematobia*, the constitution of the blood is altered, hemorrhage takes place during the congestive stage of malignant intermittent fever, we may have a *sixth* variety, which has been indicated as *hemorrhagic malarial fever* or *malarial hematuria*.

Without doubt in this sixth form of malignant intermittent, hemorrhages from various organs, as the stomach, lungs, kidneys and bowels are directly due to the prolonged and potent action of the malarial poison upon the fibrin and colored blood corpuscles of the blood, as well as to the various alterations in the spleen and liver, characteristic of all the forms of malarial fever.

The hemorrhagic form of malarial fever may be attended with many of the prominent symptoms of the preceding varieties, as obstinate vomiting of biliary (grass green), acrid matters, extreme thirst, restlessness, feeble, rapid pulse, oscillations of temperature, oppressive breathing, coma, convulsions and apoplexy. The hemorrhagic malarial fevers prevail only at certain periods of the year, in certain seasons, and in certain well defined districts of the United States, Mexico, Central and South America, and the Antilles. The investigation should, therefore, be conducted in these various localities and under varied conditions.

The history of medicine, both in this country and in Europe, has shown that fevers attended with hemorrhages from the mucous surfaces, and even black vomit, have prevailed at widely separated periods and in different countries and localities. Without doubt, certain causes wrought this change in the type of the diseases, and their causes may be arranged for purposes of investigation under the following heads:

(a). Peculiarities of the climate, temperature, rain-fall, and physical and chemical constitution of the atmosphere.

(b). Conditions of soil, as to drainage, cultivation, etc.

(c). Sanitary condition of the inhabitants; effects of food, clothing, occupation, agriculture and manners.

The complete investigation of the nature, causes and treatment of malignant intermittents should embrace, in addition to the above:

(d). Accurate records of the symptoms at stated periods of the day and night, exhibiting the changes of temperature, pulse and respiration, and unfolding accurately the manifestations of the nervous, muscular, cutaneous, circulatory, alimentary and urinary systems.

(e). Microscopical examinations of the blood, associated also with microscopic and chemical analyses of the surrounding air and waters.

(f). Chemical analysis of the blood.

(g). Chemical and microscopical analysis of the urine.

(m). Chemical analysis of the sweat.

(n). Chemical and microscopical analysis of saliva.

(o). Chemical and microscopical analysis of vomited matter.

(p). Chemical and microscopical analysis of excrement.

The whole amount of the urinary constituents should be quantitatively determined each day and throughout the progress of the disease.

The *post mortem* examination should embrace accurate details as to the physical, chemical and microscopical characters of the solids and fluids.

(1). General description of exterior.

(i). *Post mortem* changes of temperature.

(n). Physical, chemical and microscopical characters of the cerebro-spinal and sympathetic nervous systems.

(o). Physical, chemical and microscopic characters of the heart, and of the blood contained in the vessels.

(p). Physical, chemical and microscopical characters of the liver and bile. The analysis of the bile should receive especial attention.

(q). Physical, chemical and microscopical characters of the alimentary canal and its contents.

(r). Physical, chemical and microscopical characters of the spleen, kidneys and liver.

(s). Physical, chemical and microscopical characters of the marrow of the bones.

All these changes and deviations from the normal standard should be carefully delineated by colored drawings.

The preceding investigations can only be conducted by the aid of the apparatus and requirements of a well-appointed laboratory.

But under even the most adverse circumstances, and in localities remote from large cities, reports might be drawn up of great value by *country practitioners*, embracing

Medical Topography.

Reports of cases, including careful daily records of variations of symptoms, temperature, pulse, respiration, etc.

Mortality—to cases and population; vital statistics.

Influence of age, sex and race.

Effects of diet, location, habits and mode of agriculture.

Records of *post-mortem* examinations.

495 N. Charles street,

New Orleans, Louisiana.

HOSPITAL RECORDS.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SEVERE FEVER. M.D.
JULY 16-18, 1875.

HISTORY OF THE PRESENT ILLNESS.

L. G., white, æt. 19, born in Maryland. Admitted July 20, '75. No definite family predispositions. Patient had scarlet fever and pneumonia following it at the age of ten, and since then has never been as robust as other girls. She grew rapidly, and at

the age of fifteen weighed 145 pounds. At the time of admission she weighed 167 pounds, and thought that she was increasing in weight daily. She menstruated first in her fourteenth year, and has since then been regular, excepting that sometimes her periods came on too early. She is sick about a week and loses a good deal of blood. She has severe pain at these times in her back and hypogastrium. These pains remain to some extent in the intermenstrual period and involve her legs. She has leucorrhœa, but it is not constant.

Three years ago she began to suffer from nausea, and could not bear exposure to the sun, but there was very rarely any actual vomiting. Her appetite is poor and there is always a pain in her stomach, which is not at all influenced by eating. Sometimes there is a choking feeling in her throat. Sometimes there is distension of the stomach, and this is also without any reference to eating, the bowels are constive, and she has a passage only every third day. Tongue pale; epithelium a little thick and edges slightly marked with teeth. Conjunctiva clear. Patient suffers much frontal and occipital headache. Is never entirely free from it, but it varies in severity. Eyesight good but eyes easily tired. Memory not affected. Noises in her ears sometimes. Marked spinal tenderness in middle dorsal region, and also over upper part of sacrum, but nowhere else. More than a year ago her legs began to shake. Right leg trembles more than left, and has been moving almost constantly during this examination. This trembling appears to be beyond the control of the will. It occasionally stops, but is not stopped by distracting her attention. She can walk steadily and straight without any want of co-ordination and without muscular twitching. Occasionally she feels nervous and unsteady and sometimes giddy. She was put at once upon the following treatment:

R. Tinct. terri chlor. f ʒ j.
Strych. sulph. gr j.
Syrupi limonis. f ʒ ij.
Aquæ q. s. ad. f ʒ iv.

M. S. A teaspoonful three times a day in water.

A continued current of electricity was applied up and down the spine, by placing the positive and negative poles on either side of the spine, and also by placing the posterior pole over the sacral plexus, and the negative pole over the sciatic nerve in the legs.

July 23d. Very little change in the patient's condition. Suspended the use of the battery temporarily on account of menstruation coming on.

July 25th. No change apparent. Menstruation still continued; ordered tr. valeriani, f ʒ j., three times daily, and stopped the iron mixture.

July 27th. Patient complains of severe pain in the stomach and chest. This pain is so great as to prevent sleep and does not seem to be at all relieved by anodynes. Menstruation still continues.

July 28th. Ordered last night tr. valerian. ammon. f ʒ ss. and potass. bromidi gr. xv. to produce sleep. After taking an ounce and a half of valerian and gr. 45 of the bromide the patient fell asleep and slept well. This morning she seems better and has not so much pain. Commenced the battery again, although menstruation still continues.

July 30th. Decidedly better. Less nervous twitches

ing and no very severe pain. Stopped the tinct. of valerian and returned to iron and strychnia.

July 31st. Stopped the iron mixture and ordered a pill of iron, quinia, strychnia, arsenic, and belladonna; also 12 grains of quinia in pill form to be taken in twenty-four hours.

August 5th. Patient complains of pains in the limbs and back, and also of violent pains in the stomach, especially at night.

August 6th. Last night the pain was very intense, so much so as to make the patient almost insane. To quiet her 3 ij. of chloral were given by enema, morphia sulph. gr. ʒi, hypodermically gr. xl. of bromide of sodium and gr. xl. of chloral by the mouth. Gr. c. of chloral had been given before this combination was tried. These anodynes had the effect of easing the pain somewhat, but produced no sleep. This morning she has severe pain in her head only and is very sick at stomach.

August 7th. Passed a better night. No medicine required excepting two doses of the tincture of valerian, of ammon. and dilute hydrocyanic acid (3 ij. of the former and gtt. ij. of the latter). Nitrite of amyl was given once by inhalation, to relieve the spasm caused by the pain. This morning she is better and complains of no pain in her stomach at all. The battery was applied, and a diet ordered as follows: One half pint of milk and lime water at 9 and 11 A. M.; at 1 P. M., one-half pint of beef tea, and at 3 and 5 P. M., one-half pint of milk and lime water. The quinine pills were continued, and also gtt. iij. of Fowler's solution given t. d. on account of an eruption having appeared on the face and trunk.

August 9th. Improving; passed a very good night, not requiring any anodyne. Ordered Fowler's solution to be increased to six drops t. d., and continued the other treatment.

August 11th. Sensitive spots on the spine now nearly normal. Sleeps well, requiring no anodyne.

August 20th. Still doing well. Bowels most too freely opened by the arsenic, so it was stopped, and chalk mixture given to correct its effect. Complains a little of headache this morning, but says it is not severe.

August 23rd. Stopped the hydrocyanic mixture because it seemed to have a tendency to open the bowels too freely, and gave quinia alone. General condition better.

August 24th.—Courses came on to-day, so the battery was discontinued for the present. There was some return of the pain in the stomach and of the twitching of the limbs, accompanied by a sense of fullness in the chest.

August 26th.—Pain pretty severe last night, but not so bad as to require any anodyne.

August 27th.—Much improved. Menstruation still continued, so did not use the battery. Patient is taking bismuth subnit. gr. xii. t. d.

September 1st.—Commenced the Fowler's Solution again in two drop doses. Some little pain in stomach and weakness, but no decided change.

Sept. 2nd.—Commenced the hydrocyanic acid again in gtt. i doses, with some tinct. val. of ammon. Stopped the bismuth powders and reduced the quinia to gr. vi. per diem.

September 9th.—Lying in a tight thigh and pain

in epigastric region. Ordered a plaster to be applied to right iliac region.

Sept. 15th.—Did not sleep well last night. Began to complain of great pain in the abdomen at about 6.30 P. M. Gave her between 7 and 12 P. M. chloral hyd. gr. cxx., by the mouth, and 3 j., by the bowel; also, sodii brom. gr. xx., by the mouth. After taking these remedies she seemed much easier.

September 16th.—Feels a little better but pain still continues. Gave a warm bath at about 7 P. M., followed by a cold douche to the spine, ordered a mixture of fer. val. ammon. and spirits aether. comp., and after taking two doses of this she slept pretty well all night.

October 1st.—Very little change. Applied a wet pack over her stomach at night in order to relieve the pain.

October 3rd.—Decided improvement. Slept well last night and has no pain this morning.

October 4th.—Not so well. Slept badly last night and had some vomiting; ordered a suppository of hyoscyamus (gr. ij.), at night.

October 6th.—Stopped all other medicines and ordered bismuth sub. nit. gr. vi. and calomel (gr. ʒi) t. d.

October 9th.—Stopped the calomel and bismuth powders and ordered zinc valerian. (gr. ij ss.) t. d.

October 11th.—Courses came on last night, one week ahead of time. No change in general condition.

October 17th.—Ordered camph. monobrom. gr. ij., three times a day and made applications of Lugol's solution of iodine to the cavity of the uterus twice a week.

November 24th.—The same treatment was continued until to-day, when the patient was discharged improved.

The woman has since greatly improved and is soon to be married.

TRANSLATIONS.

CLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

AND A WATTH, M.D.

RESECTION OF THE COLON, ON ACCOUNT OF CARCINOMA.—DR. EATON, DANZIG.

G. F., railroad laborer, married, father of a healthy child, has heretofore enjoyed good health, with the exception of an attack of malaria in his youth. For one year has suffered from pains in the abdomen, which were characterized by cramps, irregular evacuations, loss of appetite and loss of flesh. The bowels could be moved by purgatives until the 8th of November, when absolute retention ensued followed by severe vomiting of, latterly, fecal matter. The patient was admitted on the 22d of November, in the city hospital of Danzig. He looked pale and attenuated but was not so wasted as patients who suffer from an invagination generally are. The pulse and temperature were normal, respiration slightly accelerated. Upon percussion of the equally tympanitic abdomen, there was no dullness to be found, neither

was there any special pain on pressure. The examination *per rectum* in reference to the point of closure of the gut was only negative. Repeated injections with the funnel apparatus were also without result, although there was no more vomiting in the first few days and the patient had a little better appetite. The vital powers were kept at about the same by three injections *per rectum* of peptone. On the 1st of September, in the morning, the patient vomited $2\frac{1}{2}$ litre of non-stercoraceous matter, after which signs of collapse ensued. From this he rallied soon, and for several days there was no more vomiting, when on the 5th of December it commenced anew, and this time was decidedly faecal. I therefore operated on the 6th for artificial anus on the right side above the Poupart's ligament, I chose a loop of the small intestine which protruded, as I was unable to find the cæcum with my finger, from which immediately a large amount of liquid faecal matter flowed.

The patient recovered promptly; had no fever, the meteorismus disappeared, and his strength increased visibly. Nevertheless the lancinating pains below the right hypochondriac region increased, and since, at the seat of pain, there was found a cylindrical, almost immovable tumor, and an injection of morphia proved inefficient, the patient still sinking. At his request I again operated on the 13th of January, *z. z.*

I made a longitudinal incision of 8 cm. above the tumor, which commenced 2 cm. below the edge of the ribs, and was a distance of 6 cm. from the median line to the right. On opening the peritoneum, I found the tumor, which belonged to the ascending colon near its turning point into the transverse portion, adhering to the peritoneum, abdomen, the omentum, the small intestine and the cæcum. In order to expose this tumor fully I was compelled to make another incision, commencing in the middle of the longitudinal one and extending thence to the right for 5 cm. After several turnings of the lower coverings of the tumor, I proceeded first to loosen the omentum, then the small intestine, and finally the cæcum. In doing this, the surface of the tumor was rent in the middle and a little liquid faecal matter exuded, which was prevented from entering the abdominal cavity. I then loosened the mesocolon, cutting away a wedge-shaped portion of the same, which contained an infiltrated gland, the bleeding vessels severally tied, and finally after fixing with a long forceps both ends of the gut, I resected the carcinomatous piece of the same. I then united the ends of the colon with carbolized silk by a figure of eight suture (Gussenbauer's.) The operation was performed under Lister's spray, while the faecal fistula was kept closed by a compress of salicylated cotton. The wound was dressed with antiseptics and the lower edge of the dressing fixed with a rubber bandage, by which proceeding I tried to prevent any faecal matter coming from the fistula from running under the dressing, which precautionary measure proved perfectly successful. The patient stood the operation well, vomited in the first few days occasionally, but the abdomen remained flat and painless. The pulse in the beginning was frequent (132), fell on the second day to 96. The temperature on the evening of the 14th was 38.3° , on the 15th 38° and remained after that normal. The wound healed very well on the 19th when dress-

ing was changed. On the 16th the suture was loosened on the point of connection, and from that place flowed a faecal liquid. I washed the parts carefully with a solution of salicyl and placed a drainage tube in the opening. After the passage per anum of gases on the 14th, the patient had an evacuation on the 18th which was of a doughy consistence. The flow of faecal matter from the primarily made fistula grew daily less in quantity, while on the other hand the amount increased from the new wound, so much so that in order to let some hard substance pass out, I had to remove the sutures. On the 20th the patient apparently grew worse, refused all nourishment, commenced vomiting again, and although the abdomen remained contracted and painless, the patient died on the 22d, nine days after the operation. The post-mortem showed that only the mesenteric half of the suture of the colon had united, the other part of the colon gapped open widely, and near this opening there was a sac filled with faecal matter, which communicated with the perinephritic cellular tissue, but was divided by strong adhesions from the cavity of the perineum. The abdominal cavity contained no kind of exudation, the collapsed intestines looked reddish, but no more so than they appeared during the operation. Not a sign of carcinomatous degeneration could be detected. The first artificial anus, which was situated about 30 cm. above the ileo-cæcal valve, only admitted of the passage of a very thin sound. The resected piece of colon has a length of 8 cm. It is contracted in the middle, and has the shape of an hour glass, and is twisted so that the posterior convex side appears much longer than the concave side, which is turned toward the wall of the abdomen. The lumen is entirely closed by the new growth, which is very rough on its surface, and grayish-white on incision. The microscopic examination shows various conditions; some places appear very rich in cells, with almost invisible aroma, while in others the latter was so abundant that only very few interspaces filled with cells could be detected.

Although it has been proven that resection and closure by suture in cases of gangrenous strangulated hernia were successful, as in a case of Kocher, and the same operation resulted in cures of cases of *anus præternaturalis*, by Dittel and Billroth, the case before us is different. Five operations similar to one above described, including Gussenbauer's, Schede's Thiersch's, and two others, one in Vienna and the other in Königsburg, all ended fatally. Against these five deaths stands only one successful operation, namely, the case of Raybard, as reported at the last annual Congress of Surgeons, by v. Adelman. It is remarkable that a case of so much consequence as this of Raybard should have fallen into obscurity. More remarkable still it appears that the French surgeons Velpeau, Nelaton and Follin, the *Dictionnaire de Médecine Pratique* and the *Encyclopédie Médicale* should pass this case without mentioning. Raybard himself is not at all unknown, the *Encyclopédie* gives a biography of him; his experiments on animals are mentioned; his suture or modified furrier's seam is described by Velpeau, but he adds, "du reste je n'ai point appris, qu'il en ait fait l'application à l'homme."

Dr. Baum concludes that in case of closure due to neoplasms, relief should first be obtained by making an artificial anus and the resection practiced afterwards if it should be necessary. Both operations should be done under Lister and care taken to procure the pure phenol used by Mr. Lister (which he says can rarely be procured in Germany).—*Centralblatt für Chir.*, No. 11, 1879.

DISLOCATION OF THE SHOULDER JOINT—SPECIMEN.

M. Vedrenne presented to the Societe de Chirurgie the shoulder-joint of a patient dead soon after a dislocation. The capsular ligament was ruptured for a distance of 2 centimetres along its internal attachment to the glenoid cavity. The periosteum was torn. The long head of the biceps remained uninjured in its sheath.—*Ibid.*, p. 51.

EXTRACTION OF A PISTOL BALL FROM THE PETROUS PORTION OF THE TEMPORAL BONE—M. TERRILLON.

Patient æt. 32, was wounded by a pistol ball about four months ago. A fistula formed and opened into the external meatus. The missile was extracted and was found to have been driven into the temporal bone as far as the cochlea. Recovery.—*Ibid.*

156 GRAINS OF A HYDRATE CHLORAL TAKEN AT A SINGLE DOSE—RECOVERY—LISHOP.

Patient, hard drinker, æt. 32. Had delirium tremens and had not slept for sixty hours. After taking above dose, zinc and ipecac were given to produce emesis but to no effect. No stomach pump could be obtained. Profound sleep followed. Pulse when highest was 132 in the first hour; then sank to 88, awoke, free from his delirium and pain.—*Ibid.*, *Feb.*, 1, 1878, p. 56.

ECHINOCOCCI OF THE LIVER OPENING INTO THE AIR-PASSAGES—RECOVERY—KATZ.

Patient for six years had had occasional jaundice and lately noticed a fluctuating tumor in the liver region, which, proving to be echinococcus, was opened. Improvement immediate and marked. Another tumor developed later, and, as patient refused to be operated on again, this continued to grow, pushing the lung up into the thorax. During a paroxysm of coughing the swelling ruptured into the lung and within a short while about four quarts of fluid were expectorated. Recovery followed.—*Ibid.*, p. 80.

CAUSAL ANURIA—TENNESON.

Patient, male, æt. 56; on the 13th of last September, discovered he could not urinate. Despite all efforts he could make, combined with catheterization, not a drop of urine passed for ten days.

September 25, a catheter was again introduced with the same result. The patient had never had nephritic colic or hematuria, no alcoholism, rheumatism, or tumor, or other malady. On the 27th September,

he was attacked with uræmia, which proved fatal five days later.

Autopsy.—Right ureter completely obliterated by a calculus. Left ureter permeable, but in a calyx, a calculus was found which, when engaged in the ureter, obstructed it entirely.

Van Swieten has shown that obstruction of one ureter is sufficient to lead to anuria, but this anuria is only temporary. M. Tenneson concludes that the calculus in the calyx pressed upon and occluded also in this patient the left ureter, cutting off both outlets of the kidneys. *Gaz. des Hép.*, N. 23, 1879, p. 28, 182.

HEMORRHAGE FOLLOWING USE OF IODIDE OF POTASSIUM.

M. Hallopeau reports the case of a man, æt. 35, syphilitic, treated for a prolonged period by iodide of potassium, who suffered from purpura hemorrhagica, and finally from hemiplegia, which he attributes to the use of this remedy.—*Progres Medical*, Jan. 11, '79; p. 20. (A case similar to this has been reported in a late number of THE HOSPITAL GAZETTE.—W.)

Suspended Animation.—The nitrite of amyl being a powerful agent in quickening the heart-beat, a few drops of this drug have a powerful influence in restoring the functions of the heart in cases of drowning, hanging, or fainting. It is suggested, therefore, that it should always be used whenever attempts are being made to restore to life in an individual apparently dead, or when it is desirable to settle the question whether a person is really dead or not. The dreadful thought of being buried alive has haunted the human race since its earliest days, and the discovery of some means by which this risk could be, if not evaded, at least greatly diminished, would prove an ineffable boon to mankind. Dr. T. Lauder Brunton, to whom we have referred this suggestion, considers it to be a good one. He adds that in ascertaining death the nitrite of amyl might be used along with the cord-test, of tying a cord around the finger. If the circulation has entirely stopped, the part beyond the ligature never becomes any thicker; but if circulation continue, however slowly, the finger-tip beyond the ligature will sooner or later begin to swell.—*Brit. Med. Jour.*

The Work of the Vaccinating Corps of the Health Department.—Few members of the profession, save probably, any idea of the amount of work done by the physicians attached to the vaccinating corps of the health department of this city. The subjoined figures will demonstrate that these gentlemen have not been idle. During the year 1878, 54,060 vaccinations were performed, of which 13,179 were primary, and 40,881, re-vaccinations. During the month of May, 1879, 6,904 people were vaccinated, of whom 3,261 had never been vaccinated before. The amount realized from the sale of virus to physicians in 1878, was \$557.22.

THE HOSPITAL GAZETTE,

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

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EDITORIAL.

TAKE A VACATION.

The physician in his practice trudges along a regular treadmill existence, double oppressive since there is no certainty as to the periods of relief. His daily trudging begins with the exhibitions of indisposition in one or more of the many families that rely upon his skill, and it ends when these exhibitions cease, a time never yet seen or known. Indisposition being generally consequent upon irregularities, indiscretions and exposures, which have no concern about the time of their happening, must of necessity come as inopportunately; random causes cannot yield regular results. Midnight or wee sma hours are as appropriate hours for colic or diphtheria to open its performance, as the time when the light of the sun makes travel more convenient and safe. The "little stranger," whose advent in the household causes so much rejoicing, seems to prefer the later hours of the night for his first appearance, notwithstanding the complaining of crusty old folks, and the needed rest of the physicians. The said "little stranger" and his parents insist upon the doctor's being present and becoming master of ceremonies upon this important occasion, regardless of his weariness and of the unseasonable hour; the welcome is committed entirely to his ordering. Chronic cases of all shapes and every degree make their threatening changes, and acute disorders manifest their violence at any hour of either night or day—one hour suiting their purpose as well as another. The doctor is called upon for his advice regularly in regard to these irregularly occurring changes and manifestations, and must respond promptly. In order to be true to his calling, and honestly devoted to the welfare of his patients, the physician must sacrifice himself, not merely his

comforts, but himself, for life is dragged out by the loss of rest. His office hours, strictly a part of the treadmill, alone have an approach to regularity and certainty, the remainder of his time being entirely dependent upon that variable quantity, other people's ignorance or carelessness developing into disease.

No wonder then that the characteristic appearance of the physician from the artistic view is skeleton-like, and his fatness is hidden among his bones. Such slavery would exhaust a Hercules, therefore the learned doctor cannot thrive. He may be experienced and skilful in meeting and overcoming diseases, but he must obey nature's laws for himself, or pay the forfeit for himself.

To the physician then, as to any one else, self-preservation commands a getting away from the trudging in the old treadmill, if not for all time, as often as possible. He must desert the familiar track, put himself in hiding, beyond the reach of his trusting oppressors, that he may obtain that undisturbed rest from business which will rebuild his shattered life, renew his strength and restore his manhood. Not even a physician is justified in forgetting that he is a living man, amenable to the laws of life, and in this forgetfulness wasting his life; none are more thoroughly obligated to be discreet, since to them the penalty for indiscretion is fully and always shown. Everybody else if he can, though his task is less exacting, and his opportunities for repose and refreshment are suitable and appointed, breaks away from the field of his labor—if he live in a city, the heated term finds him a wanderer in strange lands, and among strange scenes, surely, and during its continuance. The lawyer, the preacher and the merchant skip away from their accustomed haunts of labor, properly, at every invitation, in midsummer with arctic designs, in winter with tropical notions; certainly the overworked physician should not suffer the continued trials and miseries which his profession imposes, when he can be spared for a season. The absence from home of his horde of patients offers a favorable chance to take the needed vacation, and saves him in part from unjust criticism of the thoughtless. Duty demands and chance offers a vacation.

The highest interests of the profession are forwarded by these seasons of recuperation, therefore their influence is exerted in urging the renowned in the profession to let up occasionally, rest and then begin again with a renewed vigor and strength. Progress in medicine is not the result of the work of worn out and exhausted intellect, but each advance comes as a flash to the quick, full-force intellect, ready to catch it as it flashes. The dull

plodding or generalizing and tabulating is within the province of heavy intellect, but the glory of discovery comes only to the bright intellect, always kept bright. Centuries of overwork produce decay, but flashes of intellect bring progress. The long voyage in the *Pinta*, *Santa Maria* and *Nina* did not discover America; the printing press, steam engine and telegraph were not born in the foundries where the mechanism was molded. A gleam of truth twinkled before a quick intellect. *This* was the discovery, then came the drudgery. The triumphs of science over disease will come in the same way, to the same kind of mental vision. The physician who preserves his manhood, while loving his profession, will reap the glory of discovery, will conquer disease; the drudge will practice his profession, and that only. Rest then, if you have designs of excellence, for weariness will fail to accomplish your purpose.

The best of men after fairly commencing a work, in their thinking and labor, soon fall into ruts, and the size and shape of the product of their toil can be prophesied, the ruts control them so completely. In medicine there are ruts, bromide of potassium, quinine, opium, and let whatever affliction be present, the doctor takes his rut and there he goes. Forsake the ruts, all of them—forget them—and then there will other and better modes of treatment take their place.

However we consider the subject, there comes the prompt response advising the doctor to drop his work for a time, to live away from the scenes of his never ending toil and care, to take a vacation. Make that vacation profitable to the utmost, therefore do not include your office, books and instruments, nor your patients and their afflictions, in your luggage. Buy a new trunk and fill it with a new wardrobe, for your present garments are infected with fever and poison of sick rooms and disease, the pockets farthest out of the way being terrible contagion breeders, with their scraps of lectures and clippings from journals. Invite your wife and children to go with you, as you will find them pleasant companions, will be wonderfully pleased to see the improvement they have made since last you mingled with them as one of the family. After having been out for a week, disinfecting the mind, and relieving it from the recollection of sickness and death, a gun and fishing tackle will have a great humanizing effect, so do not forget to stow them away with the new wardrobe. Doctors, take a few weeks to live for yourself, restore yourself and reinvigorate. When such a vacation has ended, your patients will be pleased to welcome as their physician, not a lank, sallow, drowsy being, but a lively, happy, ruddy man; a

either case devoted and earnest, but in the former less reliable, because worn out.

For his own sake, for his patient's welfare and for the honor of the profession, the physician should occasionally let go, that he may take a better hold.

SOCIETY PROCEEDINGS

MEETING OF THE AMERICAN NEUROLOGICAL ASSOCIATION.

[Reported for THE HOSPITAL GAZETTE.]

THURSDAY, June 18th, 1879.

The meeting was called to order in Municipal Hall, New York City, by the secretary, Dr. E. C. Seguin, who introduced the newly elected president, Dr. Myers, of Baltimore. The latter, upon taking the chair, expressed his gratification at the honor that had been bestowed upon him and claimed that such a society as this was extremely useful, by collecting the results attained by workers throughout the country, at the same time that it served as an encouragement and an incentive to them.

As the minutes of the last meeting had already been printed, and a copy thereof sent to every member, their reading was dispensed with.

The resignations of Drs. A. M. Hamilton, Loring and Roosa of New York, and Burnett of Washington, were accepted. The reports of the secretary and treasurer were received.

Drs. W. J. Martin and Amidon of New York were nominated for membership.

An amendment to the by-laws, referring all business to the council, subject to the approval of the association, was carried. An amendment was proposed, providing that any member, who shall absent himself from two consecutive meetings, shall no longer be considered a member, unless he present an acceptable excuse to the council.

A paper prepared by Dr. Bannister of Chicago, was then read by the secretary in the absence of the author, who regretted his inability to attend in person. It was on a case of

GUNSHOT WOUND OF THE NECK, CAUSING PARALYSIS OF THE SYMPATHETIC, AND FOLLOWED BY INSANITY.

P. Kelly, aged 43, a policeman, received a pistol shot wound of the left side of the neck, the point of entrance being two or three inches above the clavicular insertion of the sterno-mastoid muscle. When seen two or three hours later, he was suffering but little from shock, and in two or three months the wound had healed with no unusual symptom, except that there was a little flushing of the left side of the face, which became still more marked after his recovery; there was also a slight difference between the prominence of the eyes. His general health remained unimpaired, but four or five months later there were noticed symptoms of mental impairment; he became subject to delusions, imagined himself some grand personage, and became dangerous to those about him. He continued in this condition until the following summer, when his wife was compelled to have him arrested for insanity. At this

time he was listless, complained of pain in the shoulders and there were present slight inequality of the pupils and flushing of the left side of the face. He grew steadily worse, so that he was finally sent to the insane asylum, where he now is, his insanity being of the form of delusions of grandeur, with suspicions of conspiracy. There is a difference of nearly one degree centigrade between the temperature of the two sides of the face. The bullet, it seemed probable from the situation of its point of entrance and its direction, had cut some of the fibres of the cervical sympathetic. The right pupil was a little the larger and more vacillating in a faint light, though no difference between the two pupils could be observed in a bright light; the secretions were normal.

The author regarded this as a case of uncomplicated injury to the cervical sympathetic, such as is seldom met with. There was no history of any lesion except that of the sympathetic, this was shown by the reddening and increased temperature of the left side, the myosis and enophthalmos of the left eye, the partial paralysis of the right side, and the difference in size of the two sides of the face in favor of the left. The principal interest was in connection with the mental disorder which dated only from the injury. The cerebral hyperæmia resulting from the injury to the sympathetic was offered as a possible explanation.

When discussion was called for, Dr. Hammond remarked that in his opinion Dr. Bannister had merely glanced at the most important aspect of this remarkable case, namely, the relation of injury of the sympathetic to the general paralysis of the insane. This case also shows that the limited locality usually assigned to the human mind was too limited; that the mind was not merely situated in the brain, but wherever brain tissue was found. Dr. Seguin thought that before accepting this as a case of general paralysis of the insane, we should look at the symptoms a little more closely, and he noticed that the most of those usually found in that disease were absent: there were no fibrillary movements, no epileptiform attacks, no peculiarity of speech, &c.; in fact only the delusion of grandeur seemed to point in that direction.

Dr. Hammond explained that general paralysis of the insane was a disease of multiple lesion of the brain, sympathetic and spinal cord, and that he regarded this case as showing one phase of it.

Dr. Putnam would hesitate to accept this as an example of the effect of a particular injury upon psychological activity, but would put it under those frequent indirect effects of any lesion of an important organ upon the action of the mind.

This closed the discussion upon Dr. Bannister's paper.

Dr. Putnam exhibited a rheostat of his invention which was composed of metal, and which, without the exactness of the German rheostats, answered every practical purpose, and was much cheaper, while overcoming the difficulties which he had met with in the use of the water rheostat.

Dr. Hammond thought that, though useful in physiological research, rheostats were of little practical use in therapeutics.

Dr. Beard had experienced with all forms of

rheostats, but had got out of the way of using any, and he explained this neglect by the fact that he, too, found that he got along just as well without it, substituting for it pressure on a large sponge.

Dr. Rockwell thought that Dr. Beard's sponge rheostats was a slipshod arrangement, as every variation in pressure was equivalent to an interruption. He had found the rheostat useful in irritability and pain, where without the rheostat he had failed.

Dr. Hammond thought that the water rheostat answered every purpose, as Dr. Myers had suggested.

Dr. Seguin agreed with Dr. Rockwell that it was with great difficulty that we could avoid giving shocks, which were disagreeable to the patient. He urged as an objection to the water-rheostat that, unless it had an adjustment similar to the coarse adjustment of a microscope, it was almost impossible to avoid giving unpleasant shocks, when the metallic points were brought too close together.

Dr. Mason had only used the rheostat on the ear, but in his opinion the water rheostat sufficed for general use, but for the eye and ear the metallic rheostat was preferable.

The association then adjourned till 8:30 P. M.

At the evening session Dr. Beard read a paper on Morbid Fear as a Symptom of Nervous Disease, which will appear in a subsequent number of THE HOSPITAL GAZETTE; this was followed by discussion by some of the members present.

JUNE 19TH, 2.30 P. M.

After the reading of the minutes of the previous day's meeting, the council made a report recommending the acceptance of Drs. Martin and Amidon as members, and they were accordingly elected.

The amendment proposed yesterday, providing that absence from two consecutive meetings shall constitute a resignation, was adopted, as was also a further amendment, that the presentation of a neurological communication be considered a valid excuse. The president then announced the Committee on Nominations.

Dr. Rockwell introduced a number of cases, to illustrate

THE NECESSITY OF PERSISTENCE IN THE TREATMENT OF INFANTILE PARALYSIS.

1. A boy, 4 years of age, in September, 1877, had an attack of chills and fever; a week later there was paralysis of the right lower extremity, the left lower extremity, and the right arm being similarly affected to a less extent. Six months later, the right limb was much atrophied and quite useless, though the other parts mentioned had improved. One month after the regular application of galvanism no improvement could be noticed, but two weeks after that time, some response to the current could be noticed, the nutrition began to improve, and now, six months after the treatment was begun, there was considerable contractility, and the limb had increased to the size of the other.

2. The patient began by having pain in the back and along the course of the sciatic nerve. Various methods were tried, including cauterization, without relief. It was noticed that mild pressure over the course of the nerve increased the pain, while firm pressure relieved it. The doctor regarded this as

an indication for the use of the Faradic current, which was tried, with marked improvement.

The question of the effect of the direction of the current having been alluded to by Dr. Rockwell, Dr. Hammond remarked that he had obtained just as good results from the ascending as from the descending current.

Dr. Shaw thought that in the greater part of the body, the direction of the current made no difference; but on the face, where the conditions approached more nearly to those met with in physiological experiments, where the nerves were exposed, the direction of the current did make a difference. He narrated a case of tic douloureux, which illustrated the effect of the difference in direction of the current.

Dr. Beard thought that the most interesting point in connection with Dr. Rockwell's communication was that it went to show that in some forms of neuralgia the Faradic current was useful, though it was often asserted that in such cases the galvanic alone was serviceable. He regarded the direction of the current as unimportant.

Dr. Seguin said that his experience was in favor of the soothing effect of the anode and the irritating effect of the cathode.

Dr. Hammond explained that though he did not believe that the direction of the current made any difference, he did believe that the situation of the poles made a great deal of difference. This was to be seen more particularly in their effect on ulcers, which proved the healing action of the positive pole. He had repeatedly cured ulcers of long standing by placing a piece of silver on the ulcer, and a piece of zinc, kept moist by having a piece of flannel soaked in vinegar, on the opposite surface of the limb, the two plates being connected by copper wire.

Dr. Beard had frequently treated ulcers by the application of electricity, and he found that not only when applied for a long time, but even for a short time, the positive was curative and the negative destructive.

Dr. Spitzka introduced

A CASE OF INFANTILE ENCEPHALITIS FOLLOWED BY ATHEROSIS.

The patient had a history of inheritance on both sides, there being epilepsy on the mother's side and habitual intemperance on the father's, others of the children had been still-born or epileptic. Up to its fifth year this patient had been apparently in good mind, and at that time symptoms of mental impairment began to show themselves, although the patient's mental power was greater than is usually met with in such cases. The most singular feature was the atherosis of the right hand and foot, the wrist and finger-joints being capable of a motion like a spring hinge.

Dr. Hammond showed a case of bulbar paralysis with glosso-labio-pharyngeal paralysis and paresis of the right upper extremity.

Dr. Edes read a paper on

A CASE SHOWING UNCOMMON PATHOLOGICAL LESION CAUSING PARALYSIS.

Woman, age 26, housekeeper. Illness began with prolonged attack of vomiting, soon afterward, a

gradually advancing paralysis was noticed, effecting first the lower extremities, then the upper. There were still occasional attacks of vomiting, but no tendon-reflex and no sensation of a constricting band; the sensibility was diminished, the temperature a little raised, there were pus and blood in the urine. Cups were applied to the spine and morphia given hypodermically. Soon the patient became delirious, the evacuations became involuntary and unconscious. A symmetrical atrophy of the legs made its appearance, coma supervened, and the patient died. At the autopsy nothing abnormal was noticed about any of the organs, but on microscopic examination the large cells of the anterior cornua of the gray matter of the spinal cord were found to be symmetrically marked with vacuoles, which were present in varying numbers, transferring them into honey-comb like structures. A few others of the large cells were somewhat shriveled, but there were none atrophied or vitreous. These vacuoles were most freely distributed in the cervical and lumbar enlargements. The doctor thought that this case served to show that there were parenchymatous changes which took place in the spinal cord without our being able to recognize them.

Dr. Putnam mentioned a case very much like this, which had paralysis below the knee and elbow, though with higher temperature, and which showed after death a considerable accumulation of fat in the cells.

Dr. Seguin mentioned a case which presented all the symptoms of transverse myelitis with disorganization of the lower part of the cord and which displayed the vacuoles described by Dr. Edes. Dr. Schmidt could only explain these vacuoles by the decomposition or contraction of the protoplasm of the cells.

Dr. Mason displayed photographs of the microscopic appearance of sections of the spinal cord of the alligator and of the lizard of Florida. These were chiefly remarkable for the existence of a group of cells of very large size in the medulla oblongata, sending out large processes.

In the evening session Dr. Hammond spoke against metallotherapy, which he regarded as a humbug, and a committee was appointed to investigate the subject. Dr. Martin read a paper on the Toxic Effects of Tea.

JUNE 1910

When the meeting was called to order at 2:30 P. M., the Nominating Committee reported as follows: For President, Dr. Miles; for Vice-President, Dr. Edes; for Secretary and Treasurer, Dr. Seguin; for Members of the Council, Drs. Kimbrell and Gray, all of whom were, upon ballot, elected.

Dr. Beard read a paper on

THE DOSAGE OF ELECTRICITY.

The dose of electricity, the author said, was to be regulated by: 1. The strength of the current; 2. The length of the application; 3. The locality of the application; 4. The method of application.

1. As to the strength of the current, the number of cells gave but little idea, as there were other circumstances which must be taken into consideration, as the size, moistness, and temperature of the electrodes, the amount of pressure exerted, the condition of the skin, etc. 2. The strength of the current

could be estimated by a fraction, whose numerator was the electromotive force of the battery, and whose denominator was the amount of resistance to be overcome, including the external resistance, depending upon the condition of the skin and the internal resistance, depending upon the condition of the component parts of the battery. In using the galvanic current, we can modify these difficulties by the use of galvanometers, which are reliable, provided we know the situation of the poles and the amount of pressure. For the estimation of the strength of the Faradic current we have no such accurate means.

2. The length of the application required can not be determined, as we have no definite data which can guide us. In Europe the applications were shorter than in America, possibly because in this country general applications were more employed. There is no question that in some cases prolonged application produces temporary exhaustion. With the galvanic current, 5 to 15 minutes were sufficient. Some patients are very sensitive to electricity, hence the necessity of beginning in any particular case with short applications. The author cited cases which went to prove that no exact rules, applicable to all cases, can be laid down as to the length and the strength of the application.

3. The locality of the application makes a difference; this was an additional reason why we should always begin with the mildest current, though neuralgia and other irritative conditions will often only yield to strong applications. Electricity cures as much by its reflex as by its direct action; the direct action is often submerged in the reflex. This explains the fact that the same effect may be obtained by the positive and the negative.

4. The method of application influences the effect, as to whether it is applied with a broad sponge, which is pleasant, or with a pointed electrode, which is painful. When one pole is in the vagina and the other over the spinal cord, that in the vagina is not felt.

Another source of error arose from the action of the mind on the body—mental therapeutics; this can only be eliminated by an immense number of experiments. Another factor is the temperament of the patient, which affects all therapeutics, but is more demonstrated in connection with electricity.

All these facts show that we cannot regulate the dose of electricity by mathematical figures. They also teach that we should not allow ourselves to be discouraged by failures, but persevere.

Dr. Rockwell thought that a very useful law was that we should never make it unpleasant for the patient. The long-coil galvanometer gave him very exact indications. He placed great reliance on general Faradization.

Dr. Gray desired to add his testimony to the effect of general Faradization, and cited cases in proof.

Dr. Hammond described an instrument for applying electricity to the cervix uteri, and agreed with Dr. Beard as to insensibility of the cervix uteri in the female and the urethra in the male. This applied only to Faradization, as the urethra was sensitive to galvanism.

In reply to a question, Dr. Beard described his

method of general Faradization, by placing the feet on a copper plate attached to one pole and putting the other on the back, breast, etc.

Dr. Hammond asked Dr. Rockwell whether he thought it was possible, by any process of general Faradization, to effect the internal viscera, at the same time avowing his disbelief in any such possibility.

Dr. Rockwell answered that he believed he had seen such effects produced.

Dr. Schmidt then presented some microscopic specimens, showing

THE PATHOLOGICAL CHANGES IN THE NERVOUS SYSTEM IN YELLOW FEVER.

The Doctor said: It has been supposed that the most important pathological changes are in the kidney, but from my experience, I am satisfied that most die of congestion of the brain, or, if the case is sufficiently protracted, from changes in the ganglionic bodies. Fatty degeneration is one of the most important changes in this disease, and takes place in a remarkably short time. I have been unable as yet to determine whether the changes are the direct effect of the poison on the blood or on the nervous system. I have made many post-mortem examinations, and, in all, I find congestion of the brain, and in some also effusion. In this last epidemic I directed my attention to the sympathetic ganglia, especially the semilunar and the first thoracic, and I found the nuclei of the ganglionic cells entirely gone, the cells themselves having undergone fatty degeneration.

I have specimens here which show that this congestion extends throughout the whole brain.

This explains the clinical symptoms: one dies delirious, another more gradually of exhaustion. In the former the congestion is most marked, while in the latter we find the fatty degeneration. A great deal of stress has been laid on the suppression of urine. It is true that in the kidneys we find granular degeneration, more rarely fatty degeneration, but I think that in most cases there are tubules enough left to carry on the secretion, and on more careful examination many of the cases of so-called suppression will be found to be cases of retention. The convulsions are not due to the suppression of urine, but to the affection of the nervous system.

Dr. Gray read a paper on

CHOREA AND CHORAL MOVEMENTS IN HYSTERICAL CHILDREN.

introducing a case and citing others. From these he drew the conclusion that the more they resembled chorea, the more easily they were cured, whereas the more largely the hysterical element entered into their composition, the more intractable they were.

Dr. Rockwell suggested eseria.

Dr. Hammond referred to similar cases which he had cured by large doses of arsenic.

Dr. Amidon read a contribution to the study of

CEREBRAL LOCALIZATION.

relating seven cases, some of which were in accord with, while others were opposed to the generally accepted localization of special centers in the brain. From these he drew the conclusion that motor localization has reached as near perfection as it ever will.

At the evening session there was discussion on Dr. Amidon's paper by some of the members present, after which the meeting adjourned.

CORRESPONDENCE.

CHRONIC SPASMODIC STRICTURE OF THE URETHRA.

To the Editors of THE HOSPITAL GAZETTE:

DEAR SIR: While I have no intention of engaging in further controversy with Dr. Otis on the above-named subject, I desire to draw attention to three misquotations contained in an article published by him in this day's issue of your journal, leaving the reader to draw his own conclusions.

FIRST, Dr. Otis alludes to my having charged him with inaccuracy in quoting from one of my published lectures; and he then remarks:—

"Here is the sentence *verbatim et literatim*: 'Two things are evident on reading Folet's paper: first, that the writer is unduly desirous of defending a favorite theory, and secondly, that he has mistaken the natural obstacle situated in front of the triangular ligament for a muscular spasm.'"

The lecture which I published read as follows:

"Two things are evident on reading Folet's paper: first, that the writer is unduly desirous of defending a favorite theory; and secondly, that he has mistaken the natural obstacle I have referred to, as situated in front of the triangular ligament, for a contraction of the urethra occasioned by spasm."

SECONDLY, in quoting from my paper published in THE HOSPITAL GAZETTE of May 3d, 1879, Dr. Otis writes as follows:

"Finally," says Dr. Sands, "I have heard of other cases in which death has followed the employment of the dilating urethrotome."

This pretended quotation is an alteration of the following sentence, which Dr. Otis had already cited correctly on the previous page.

"Finally, I have heard of a number of cases in which death has resulted from the employment of the dilating urethrotome."

THIRDLY, Dr. Otis, in referring to the case of Frank Whitehead—which was one of those I had said were so badly reported in the New York Hospital Case Book—as to possess no scientific value—publishes the following account of it, premising that the case "will be quoted *verbatim et literatim*": (Case Book, vol. 17, page 418.)

Through the kindness of J. L. Vandervoort I have obtained the accompanying transcript from the hospital case book, which for convenience of comparison, I shall place side by side with the record as given by Dr. Otis.

Extract from Dr. Otis's paper published in THE HOSPITAL GAZETTE, June 28th, 1878, p. 262.

SEVERAL OTHER CASES.

"F. Whitehead, 33, April 20, 1878. Twelve years ago had gonorrhoea, followed by stricture. Relieved by bougies. No trouble until three years ago. Then gradual decrease in size and force of stream.—spiral. Past year urinated only drop by drop. Before operation meatus ad-

NEW YORK HOSPITAL,
June 28, 1879.

Dr. H. B. Sands:

DEAR SIR: The following is a complete copy *verbatim et literatim* of the history of Frank Whitehead, as recorded in the hospital case book, vol. 17, page 418, et seq. JOHN L. VANDERVOORT, M.D., Librarian.

"Frank Whitehead 33, England married Dr. Geo. A. Peters, April 20th S. S. Kahn H. S. Twelve years ago had stricture following gonorr-

rhoea, 18 F. or 34 inches. 44 F. passed through this to 4 inches. Beyond that only with difficulty, with dilator. Internal urethrotomy by Dr. Peters, April 20th, 1878. Meatus slit with bistoury. Urethra injected with olive oil and measured. Filiform passed into bladder, felt won by Maisonneuve's director. Urethrotome (bladder) with cutting capacity of 12 mm. passed, dividing only anterior stricture. As No. 25 F. would not pass the stricture, Maisonneuve again introduced. After which No. 25 F. passed down to 6 inches and stopped. Beyond this only No. 15 F. flexible passed.

Otis's urethrotome introduced, dilated to 40 mm., and anterior stricture divided, when No. 36 F. passed, without any difficulty into bladder, showing that obstruction at 6 inches was only spasmodic and depended on stricture of large caliber, anteriorly.

No bad symptoms followed until the fourth day, when after introduction of a sound, had severe chill and high temperature for several days. No further trouble. When discharged could himself pass 30 F. with ease. Discharged cured, May 14th, 1878. This is probably one of the cases which Dr. Sands 'found in the records of April and May, 1878,' and which he says are 'so carelessly written, however, and the facts and figures are so jumbled that I defy anybody to draw from them any definite conclusion.'"

rhoea which lasted one year. He was at that time relieved by the passage of bougies. On three or four occasions when circumstances required the retention of urine, spasmodic stricture has shown itself but till last three years has had no trouble. For the last two or three years he noticed a gradual diminution in size of stream when urinating, it was of spiral shape, and for the last year has only passed water, drop, by drop.

On admission the largest sound that the meatus would admit was 18 F. this being obstructed at 3½ inches from meatus. A 14 F. could be passed 4½ inches, but beyond that point only a filiform could be passed, into bladder.

After the operation Patient etherized, and placed in position, meatus slit up and down with bistoury. Urethra injected with oil and after verifying above measurements Maisonneuve's director attached to filiform and following it was introduced into bladder.

Maisonneuve's urethrotome with a cutting capacity of 12 millimetres was then pushed along the groove of the director, cutting only the anterior stricture as when it was removed No. 25 F. would not pass the stricture until at 4½ inches. This was again introduced (Maisonneuve's) and stricture cut, when a No. 25 F. could with facility be passed six inches. Beyond this a flexible bougie No. 15 F., could be passed into the bladder, though a steel sound No. 12 F. was resisted at six inches.

Otis's urethrotome now introduced, dilated to 40 millimetres and the stricture at 4½ inches, and 3½ inches divided, No. 34 F. bougie à boule was resisted throughout the anterior 3 inches but passed freely back to six inches.

As the resistance at that point was evidently due to spasm, a bougie was passed upon the large stricture in the anterior 3 inches, which, it will be noted had till now been left untouched. Otis's instrument was again introduced, 3½ inches, dilated to 40 m. and withdrawn. And now No. 36 F. steel sound passed into the bladder. Two hours before operation patient was given Quin. Sulph., 15 gr. Pulv. Opii., 1 gr.

April 28th—No. 35 F. passed.
April 30th—" 37 F. passed.
May 4th—" 38 F. passed.
May 10th—" Discharge cured."

Confessing my inability to discover what meaning Dr. Ous ascribes to the words "*contraction of filiform*." I remain, dear Sir,

Yours, very respectfully,

H. B. SANDS

SANDS & OUS

A CORRECTION FROM DR. WEIR

The Editor of The Hospital Gazette:

DEAR SIR: In the last article from Dr. Ous, a case, which was at one time under my care, is cited as being "considered (by me) the subject of deep close organic stricture and treated as such." I beg to state, as was reported by me in the discussion that took place on this case when presented to the Medical and Surgical Society, that at the only examination made by myself, a sound was arrested in a supposed false passage, and that then a filiform bougie was passed into the bladder without difficulty and without resistance. In other words—no proof of the existence of a stricture was obtained by this examination. I may add that in the discussion I stated that this case could not be used in support of the theory of a muscular spasm from irritation reflected from an anterior stricture, as another possible cause was present in the false passage.

Yours truly,

R. F. WEIR, M. D.

SELECTIONS FROM JOURNALS.

TREATMENT OF INFANTILE CONVULSIONS.

In lectures delivered at the *Hôpital des Enfants Malades*, Dr. Jules Simon has recently considered the important subject of infantile eclampsia at length, and his conclusions as to prognosis and treatment are as follows:

In general the prognosis of convulsions is not serious. Convulsions ushering in an acute disease are not dangerous, whereas those occurring at its close are nearly always fatal. Repetition of convulsions renders the prognosis more and more unfavorable. Until urine has been freely voided an attack of eclampsia cannot be considered as terminated.

As to treatment, Dr. Simon takes issue with the late Prof. Trousseau, who advises little or no treatment. Dr. Simon proceeds at once to an active treatment without attempting too fine a diagnosis. He first administers a purgative enema containing senna, 5 grams, and sulphate of sodium, 15 grams, or lacking these ingredients, he extemporizes a stimulating injection. Next, at the first subsidence of spasm, he empties the stomach by an emetic. If the attack continue he himself prepares and administers a hot mustard bath to the little patient. A sedative draught containing bromide of potassium, 2 grams, syrups of codeia and of ether, cherry laurel water, etc., is to be given (to a child fifteen months old, in small quantities, as rapidly as the child will take it).—*Gazette Médicale, Archives et Médecine.*

A NEW LESION OF RENAL EPITHELIA IN THE EARLY STAGES OF BRIGHT'S DISEASE.

Prof. Cornil has presented an interesting memoir on this subject to the French Academy of Sciences. In a first case of albuminuria, of only two months' standing, with great reduction in the amount of urine, and even anuria at times, fragments of the kidneys were hardened by osmic acid. The microscope showed that in most of the remaining convoluted tubules, the epithelial cells contained large vacuoles, each filled by ball or mass of albuminoid substance. The lumen of tubuli held numerous such masses or drops, and in places these products caused distension of the tubules. As a proof that these masses were derived from the epithelia, Cornil avers the fact that *empty* epithelia were also to be seen. He believes that hyaline and colloid casts are formed in the tubuli recti by the fusion of these masses; and he establishes an analogy between morbid secretion by renal epithelia, and the normal secretion of mucus by epithelia of the digestive tracts. The same lesion was found by the author in two other cases of Bright's disease, and in one case of cystic disease of the kidneys. The lesion may be seen in preparations made by means of Müller's fluid, but not as clearly as after hardening in osmic acid. —*Gazette Médicale, Archives of Medicine.*

NERVE-STRETCHING IN TETANUS.

Dr. Thomas, of Tours, reports a case in which the symptoms of tetanus were relieved immediately by nerve-stretching, although the patient died a few hours afterwards. The patient, a man 28 years old, wounded the ball of his left thumb deeply by a fall upon broken glass. The wound did well, and the patient returned to work. Three weeks after the accident cramps were felt in the wounded hand and corresponding arm; the next day the cramps were more severe; the third day the jaws became stiff, and on the fifth day he entered the hospital in the following condition: Marked opisthotonus, with such rigidity that the patient could be raised by the neck or heels; impossibility of separating the jaws for a greater distance than half a centimetre between the incisors; difficulty in swallowing; every four or five minutes very painful convulsions, excited by the least effort or the lightest touch of the wound. The slightest spasms involved only the injured hand and corresponding arm; the more severe ones involved both arms, and the opisthotonus and trismus were increased during the attack; pruruse perspiration, dry tongue, pulse 120, temperature 39°. On the left thenar eminence was a wound three or four centimetres long, filled with healthy granulations, but not suppurating. Intelligence was complete, and the patient declared that no foreign body remained in the wound, which at the time of the accident was large and gaping; he also said that he had not been exposed to cold, and that he was not intemperate. The treatment ordered was hypodermic injections of morphine in the neighborhood of the wound every four or five hours, and a potion containing eight grams of chloral hydrate, to be taken in the course of the twenty-four hours.

The next (6th) day the patient being no better, pulse 120, temperature 40° , elongation of the median nerve was determined upon, and proceeded in the lower third of the arm, with the aid of Eschscholtz's band and local anaesthesia; the nerve was exposed for a distance of three centimetres, raised upon a grooved director and twice compressed firmly against it.

Several spasms occurred during the operation, and two slight ones followed it. An hour later the patient fell asleep, and rested quietly for two hours. On waking he had a very slight spasm, the leg moved his legs easily, drank without difficulty, and said he felt very well. At 5 P. M. the pulse was 140, and very small; temperature in the axilla 41° . At 7 P. M. delirium; 10 o'clock coma; 11 o'clock death.

The autopsy showed that there was no foreign body in the wound, and that the external collateral nerve of the thumb, which was in contact with the deeper part of the wound, was inflamed, yellowish, and adherent to the cicatrix. The median nerve, which was normal in the forearm, was deeply congested, flat and soft with rupture of the peripheral and conservation of the central fibres, at the point where it had been stretched.

The lower lobes of the lungs were intensely congested; the liver showed in its convex surface pale, anemic spots, due to the crowding of the capillaries with leucocytes. No pus in the joints or axillary glands, but three small subcutaneous abscesses in the left forearm. In the title of the note the death is attributed to purulent infection or pyæmia, but neither the autopsy nor the clinical history seems to warrant this view. Possibly if the operation had been performed two or three days earlier the result might have been different.—*Translated from Scott's Chirurgie, Archives of Medicine.*

OBITUARY.

TILBURY FOX, M.D.

The announcement which has been made lately of the sudden death of Dr. Tilbury Fox in Paris, at the age of 43, has been received with sorrow by a large circle of professional friends. Dr. Fox had made himself widely known for many years throughout the profession as an able worker in dermatological science and practice, and had achieved a solid success by gaining an excellent reputation as a practitioner as well as an investigator. Although the end came suddenly, it was not altogether unexpected. For the last six years he had been aware that he suffered from serious aortic disease, which was likely at any time to have a sudden and fatal termination. He was particularly struck by the death of Dr. Murchison, which he accepted as a warning, and set his house in order, and to many friends he announced that he had taken all preparations for leaving his papers and affairs in the most orderly condition. On Friday week last, tried especially by anxiety for a brother on General Clifford's staff at the seat of war and for the dangerous illness of his father, he began to feel the necessity for some rest to enable him to complete the summer's work, and his last attack of angina overtook

him on Saturday morning, June 7th. He and his wife had dined on the previous night with an old friend, and they parted in very good spirits; but he awoke at 2 A.M. suffering acute pain. After the first paroxysm had passed, he told his wife that he thought he was dying, but, after a few minutes, and told her to send for his friend and passed quietly away.

Dr. Tilbury Fox had passed a life of hard and successful study. Born in 1836, the son of Dr. L. O. Fox of Brighton, a well-known practitioner in the South of England, he passed a successful career at University College from 1853 to 1858, and in 1857 graduated M.B. at the University of London with honors in surgery and the gold medal and scholarship in medicine. At the outset of his professional career, he became house-surgeon at the General Lying-in-Hospital, Lambeth, and gave much attention to obstetric subjects, writing an excellent paper, published in the Obstetrical Society's *Transactions*, on Pilemiasa Doloris, and another on Puerperal Fever. He became at this time Physician-Accoucheur to the Farringdon General Dispensary. A little later, however, circumstances turned his attention to the subject of microscopic fungi attacking the skin and hair; and, as the result of some very good work in this direction, he wrote in 1863 an excellent monograph on *Skin Diseases of Parasitic Origin*, and determined to devote himself to the study of dermatology as a specialty. At that time, although little more than fifteen years ago, this specialty did not occupy so recognised a scientific position in this country as it has done since, and does now, thanks in no small measure to the thoroughly scientific spirit in which it was cultivated by Dr. Tilbury Fox among others, and the anxiety which he showed to connect its clinical study with the great hospitals, and to carry on his practice and guide his conduct in accordance with the strictest rules of professional dignity.

In 1864, he wrote his *Treatise on Skin Diseases*, of which the fourth edition is now being edited by his brother, Dr. Thomas Fox, who has for some years been associated with him in practice, and has already gained a reputation as a dermatologist. This book has not only been reprinted in America but has been translated in Italy, and is, we believe, undergoing translation into French.

In 1864, thanks to the kindness, we believe, of Mr. Erasmus Wilson, Dr. Fox obtained a travelling appointment, which was useful to him at the time for temporary passages, but in the course of absence in travelling in the East he suffered severe illness from dysentery and acute inflammation, which probably planted the seeds of his later disease. On his return, greatly reduced in strength, he wrote a paper on Cholera in the East and on the Dermatology of Egypt.

In 1866, after an unsuccessful candidature for the assistant physiciancy of Charing Cross Hospital, he was appointed physician to the skin department of the hospital. Before long, however, on the death of Dr. Hilder, he received the like appointment at University College Hospital. There he threw himself into his work with successful energy. He induced the authorities to provide an excellent set of baths and a well-equipped outpatient department; he taught large classes with characteristic enthusiasm

scism and thoroughness, and turned out a large number of well informed students. In addition to numerous contributions to the *Transactions* of societies and to the medical journals, he delivered the Lettsomian Lectures on Eczema, in 1869-70, and he re-edited Willan's *Atlas of Skin Diseases* in 1875, rewriting the text and adding numerous plates from his own portfolio. With the view of clearing up the chaos which prevailed in respect to the skin diseases of India, he prepared with Dr. Farquhar a scheme for obtaining a better knowledge of the endemic skin diseases of India for the India Office, and he founded on the answers received a permanently useful report.

Dr. Fox was at work till the last. Just before his death he had been offered and had accepted, with great satisfaction, the appointment of President of the Dermatological Subsection in the Section of Medicine at the forthcoming meeting of the British Medical Association at Cork; and we have before us a letter addressed to his friend, Professor Macnaughton Jones, in which he expresses "how much he appreciates the honor conferred upon him," and adds: "In accepting the presidency, which I do with considerable diffidence, I can only say that I will do my best to make the meeting a success so far as dermatology is concerned." We have in hand a somewhat voluminous manuscript from Dr. Fox on Hydrops, for which during the last three months we have been endeavoring to find space for publication, as he expressed a special desire that it should appear in these columns, in which a good deal of the recent literature of the subject has been published. We hope to publish it at a very early date. His last literary work—carried on, we believe, during his holiday in Paris—was a preparation of heads of his proposed address at the Association meeting.

For many years Dr. Fox was largely occupied in medical journalism, being editorily connected with the *Lancet*. His connection seemed not only to widen his interests in medicine, but, by increasing his connection and the honorable use he made of his office, added largely to the number of his friends and contributed in no small degree to his success in life. In character, Dr. Fox was bright, lively, and even effervescent, pleasant and kindly in manner, always ready to do acts of kindness and to look at the bright side of the work and character of those around him. He has contributed much to the recent progress of dermatological study and teaching in this country, and leaves to his family an honorable and a regretted name. He was able by his exertions, even in so short a career, to make a moderate provision for his children. He had much befriended other members of his family; and his brother, Dr. Thomas Fox, whose education and training he had sedulously aided, will, by his wish, continue to follow in the same path which he so successfully trod.—*Brit. Med. Jour.*

PIERRE ADOLPHE PIORRY.

One of the oldest and one of the most remarkable characters of the medical faculty of the present century has just passed away in the person of Dr. Pierre Adolphe Piorry, whose death took place on Thursday, the 15th May, in the sixty-fifth year of

his age. The life of this eminent physician may be summarised as follows. Born in 1794, M. Piorry began his medical studies at the early age of sixteen; and, while yet a student, he had to enter the army, and went on field-service to Spain, in the capacity of *Officier de Santé*. On his return to Paris in 1814, he resumed his studies under Fouquier, and took his degree of Doctor of Medicine in 1816, the title of his inaugural thesis being "On the Danger of Medical Books being read by the Laity"—a very remarkable work, of which a new edition was published scarcely two years ago. He became an *Agrege* in 1826, and was appointed Hospital Physician in 1827 to the Charité Hospital, where he met the great Laennec, with whose name that of Piorry will be immortalised in connection with auscultation and percussion, two means so indispensable in the diagnosis of chest-affections; for if Piorry were not the original inventor of percussion, he was certainly the introducer of it in France. With the idea, however, that the ordinary means of percussion by the fingers might be improved upon, he invented the well known instrument to which he gave the name of pleximeter. For this invention, and for his work on *Mediate Percussion*, he was awarded by the Academy of Sciences the Prix Montyon in 1828. The pleximeter then became the fashion in the medical world; and after having been in vogue nearly half a century, is now scarcely to be seen, as preference is given to the older method of percussion, that by the fingers alone. At the commencement of his practice, M. Piorry followed the teaching of Broussais, but he eventually struck out a line for himself which formed the basis of his future practice. Piorry wrote a good deal, and was a great innovator. He endeavoured to introduce a new theory relative to the pathology of diseases, to which he gave the name of "Organopathie," and according to which, the disease of one organ in the system is independent of the others; it is a sort of entity itself; so that the disease of one, though of the same nature, cannot be compared with that of any other. M. Piorry also made gigantic efforts to introduce a new medical terminology, founded exclusively on the Greek language; but this was not received with greater favor than his new doctrine, and both have been consigned to oblivion. He was for many years Physician to the Hôtel Dieu, and was appointed Clinical Professor in 1840. He was one of the oldest members of the Academy of Medicine, and was elected in 1823. He was also officer of the Legion of Honor. Thus, for nearly three-quarters of a century, Piorry's life was one of work and research; and were it not for his eccentricities and self-conceit, he might have died more respected, if not more honored.

NEWS ITEMS AND NOTES.

Dr. William H. Van Buren, of this city, was lately made an LL. D. by Yale College. Dr. Van Buren is one of the '38 class, and in his sixtieth year is thus honored by his Alma Mater on account of his great services in connection with the Sanitary Commission during the war, and also on account of his high professional standing and prominence among the medical fraternity of this city.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and object of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out an entire edition each week. We assure every member of our family, who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

ORIGINAL ARTICLES.

MORBID FEAR AS A SYMPTOM OF NERVOUS DISEASE.

GEORGE M. BEARD, M.D.

Read at the Annual Meeting of the American Neurological Association
June 18th, 1879.

The emotion of fear is normal to the human mind. It is as natural and as necessary to be afraid as to be courageous. Fear is, indeed, a part of the first law of nature, self-existence. This emotion is, therefore, physiological, varying both in degree and kind, with race, sex, age and the individual. In neuropathology, especially in the pathology of functional nervous diseases, the difference between health and disease, is of *degree* rather than of kind; the phenomena that belong to what we call health, passing by indefinite and not distinctly defined gradations into the phenomena of what we call disease; pathology being, in truth, as has been said, but the shady side of physiology.

Morbid fears are the result of various functional diseases of the nervous system, and imply a debility, a weakness, an incompetency and inadequacy, as compared with the normal state of the individual. A healthy man fears; but when he is functionally diseased in his nervous system he is liable to fear all the more; to have the normal, necessary fear of his physiological condition descend into an abnormal pathological state, simply from a lack of force in the disordered nervous system.

Thus it comes to pass that with the development of functional nervous diseases in modern times, particularly with the increase of neurasthenia in its various phases, there has been an increase in the forms of morbid fears, and in the number of their manifestations. When any special phase of morbid fear assumes a considerable frequency and consistency, so as to allow of classification, it is proper and convenient to give it a special name by which it can be known, described and referred to. With the understanding that these morbid fears are symptoms of diseases, rather than diseases of themselves, simply belonging to a large family of symptoms, it is a very important convenience to be able to recognize them, to interpret their meaning, to understand their relations to the other members of the same family of symptoms, and to be familiar with their diagnosis and treatment. It would probably be a correct statement to say that no symptom of functional nervous disease is so likely to be overlooked, or slighted, or misinterpreted, or improperly named, as this one symptom of morbid fear; it is diagnosticated as hysteria, hypochondria, dyspepsia, imagination, biliousness, and actual insanity. Insanity has, it is true, its morbid fears, but they are associated with delusions or hallucinations.

There are quite a number of varieties of morbid fear associated with cerebraesthesia, or brain exhaustion, without any hallucinations or delusions. The patient knows that there is no just, objective ground for his fear, but his emotional nature, under the influence of his exhausted nervous condition, overcomes his reason.

A number of years ago, I described a form of morbid fear under the term *astraphobia*, or *fear of lightning* from the Greek *astrape* and *phobos*, fear. Of this disease I have seen quite a number of cases, and have nothing to say in regard to it beyond what has been already published.

The leading symptoms are headache, numbness and pain in the back of the head, nausea, vomiting, diarrhoea, and, in some cases, convulsions. These symptoms are preceded and accompanied by great dread and fear. One of my patients tells me she is always watching the clouds in summer, fearing that a storm may come. She knows and says that this is absurd and ridiculous, but she declares she cannot help it. In this case the symptom was inherited from her grandmother; and even in her cradle, as she is informed by her mother, she suffered in the same way. A lady now under my care, the wife of a clergyman, was first attacked with these symptoms six years ago, in connection with other symptoms of general neurasthenic and uterine difficulties. Her husband tells me that on the approach of a thunder-storm he is obliged to close the doors and windows, darken the room, and make things generally inconvenient for himself and family.

Westphal more recently has described a form of morbid fear under the term *agoraphobia*, or *fear of places*. This title, however, is quite inadequate to express the many varieties of morbid fear which the expression fear of places covers. The Greek word *agora*, from which Westphal derives his term, means an open square—a market place, a public place where assemblies were held—and as applied to the cases first described by him, the term is practically, though not etymologically, a correct one, for the fear of going across open squares or places, at a distance from houses or shops, was the chief feature in the cases described by him. This fear of open squares or places is, however, but one of a large number of phases that the fear of places assumes, as I have elsewhere described. In strictness, fear of places should be derived from the Greek word *topos*, place a generic term, while *agora* is a special kind of place; *agoraphobia* would, therefore, be a species of *topophobia*, a general fear of places, which symptom seems to be capable of infinite variety. Thus one of my cases, a gentleman of middle life, could walk up Broadway without difficulty, because shops and stores, he said, offered him an opportunity of retreat, in case of peril. He could not, however, walk up Fifth Avenue, where there are no stores, nor in side streets, unless they were very short. He could not pay a visit to the country in any direction, but was hopelessly shut up in the city during the hot weather. One time, in riding in the stage up Broadway, on turning into Madison Square, he shrieked with terror, to the astonishment of the passengers. The man who possessed this interesting symptom, was tall, vigorous, full-faced, and

physically and mentally capable of endurance. He had, however, other symptoms of cerebrasthenia. These fears take opposite phases; thus, with one it is impossible to go to a certain place, where he was perhaps first attacked with the evil symptoms. And another finds it impossible or very difficult to go out of his house to any distance where business calls. I have now under care a patient who for a long time has been shut up in his house, unable to go anywhere, simply from fear of going anywhere. For a long time he was unable to come to consult me; but now I see him regularly; but he did not, until lately, since he has improved, go anywhere else. Quite a number of persons I have seen who find it difficult to go on long journeys, and if they do go, must have company. A person wrote me from a distant city in the West, expressing a desire to come and consult me, but upon reaching a city at some distance was compelled to return home without reaching New York. All these forms of morbid fear—fear of leaving home, fear of going to any locality or in any direction, fear of travel—are properly varieties of *topophobia*, the fear of open squares or places being relegated, though not quite correctly by *agoraphobia*.*

Dr. Meschede brought to the attention of the physicians at Cassels, in Germany, a form of morbid fear quite the opposite of what is known as agoraphobia, or fear of *open* places. In his case the symptom was fear of *close, narrow* places. The patient, a young man twenty years of age, was seized with a feeling of giddiness and confusion when in a small, narrow room. In the summer he could not sleep in a room at all, but was obliged to camp out; in winter he slept in a large, airy room. He was obliged to give up his studies and become a farmer. This symptom cannot be classed as agoraphobia, at all, for it is the reverse condition. It belongs properly to what I call *topophobia*, fear of places; and is, like agoraphobia, a species of which topophobia is the genus.

A form of fear I have lately described is *anthropophobia*, derived from the Greek *anthropos*, man, and *phobos*, fear. This term applies to aversion to society, a fear of seeing, encountering or mingling with a multitude, or of meeting any one besides ourselves. This phase of morbid fear has different varieties. One form is *gynophobia*, fear of women, from the Greek *gune*, woman, and *phobos*, fear. Some patients afflicted with cerebrasthenia have no fear of male society, but are particularly timid at even the approach of females. They can mingle with men in ordinary business relations, but dread to go in any company where women are found, even when not particularly bashful. A person once consulted me for gynophobia which took on a peculiar form; he being only afraid of women in the society in which he moved; women of the lower order he cared nothing for, and he had no anthropophobia, or fear of man. In quite a number of cases this fear of man is so severe as to compel patients to give up business entirely; and I know a number of cases where men of strong muscles and having the appearance of great physical strength have been

compelled through this symptom alone to withdraw from the occupations in which they were engaged; they could not face men, deal with them, persuade them to buy or sell, or have any influence over them; they dreaded to meet a human being. This form of morbid fear is often accompanied with turning away of the eyes and hanging down of the head, but not necessarily so, and usually so only in the severer cases. This phase of morbid fear is a very good barometer of the condition of the system. From this alone we can often judge whether the patient is improving or growing worse. It is a very interesting symptom. In some cases I hold the head of the patient between my hands, so as to bring his face opposite mine, and even then he will involuntarily turn away his eyes. This phase of morbid fear also has its opposite. In some persons there exists what may be called *monophobia*, or fear of being alone. Some of these persons cannot travel alone, but have no difficulty in traveling if they are in company with some one. Sometimes they cannot walk the street alone or leave the house except in company.

A form of morbid fear that has long been known to the profession is pathophobia, or fear of diseases—more commonly known as hypochondriasis. This form of morbid fear seldom exists alone, but is found in company with other symptoms—some real disorder of the nervous system. The pathophobic sufferer, with brain or stomach, or both, exhausted for some reason, may fear disease of the heart, of the stomach, or of the brain, or of the reproductive system, even when there is no sign of disease except his fear. The mistake usually made in the study of these cases is to assume that this fear of disease is the only symptom which the patient has, and that it is the cause of the disease; whereas, usually, it is the result of the disease, whatever the cause may be; and as such should be studied and treated.

There is a manifestation of morbid fear which is not uncommon, and to which we might perhaps give the term *pantophobia*, or fear of everything; all responsibility, every attempt to make a change of movement being the result of dread and alarm. The wife of one of my patients has a morbid fear in reference to one of her sons, a lad of about fifteen years of age; and so distressed is she by it that she cannot allow him to go out of the house or out of her sight; fearing lest he may be kidnapped, or some harm may come to him, as in the case of Charley Ross. The poor fellow is thus kept a prisoner most of the time, and the whole family is disturbed and annoyed. He must remain in the city during the summer, as she cannot allow him to leave town; and at no season can he go anywhere unless accompanied by his tutor.

A lady now under my treatment who is also *astrophobic*, tells me that she is afraid to go into the street, to do any shopping, or attend to any business; that it is an affliction for her to come to see a physician; everything is a dread to her, even when there is no draft made upon her physical strength.

The expression *phobophobia*—fear of fears, might possibly apply to a certain class of nervous patients, who fear they may fear, provided they make an attempt to move or go in any direction where their morbid fear is in the way; they are afraid even

* In etymological strictness agoraphobia means fear of *large assembly* of human beings, and not of the place where the people meet.

when they do and say nothing. These persons fear when they are entirely still and inactive, from a fear that if they attempt to do anything they will be attacked with their especial morbid fear. One of my patients—a stout, and large man—in addition to topophobia (fear of places) had at one time a fear of committing some crime against women that would disgrace him. He was ashamed of his fear; he could not help it, although he has now entirely recovered.

Mysophobia, fear of contamination, lately described by Dr. Hammond, comes under this head; the results of the treatment showing very clearly that it is symptomatic of a similar or analogous condition of the brain. In those cases there were no hallucinations or delusions.

In regard to all these different forms of morbid fear, by whatever name they are known or described, these general propositions are true and verifiable.

First.—These morbid fears are symptomatic of functional, never or rarely, of organic diseases. The existence of any of these symptoms in a doubtful case of diagnosis, would alone, almost establish the nature of the disease, or enable us to give the casting vote.

The best test of skill in the practice of neurology is in making a differential diagnosis between functional and organic diseases in their early stages; for this cause alone morbid fears demand close attention.

While it is possible for hysterical and neurasthenic symptoms to appear and maintain themselves, more or less, in organic diseases, yet these symptoms of morbid fear are not found, according to my observation, in what we call organic or structural diseases of the brain or spinal cord; it is strange that they are not, but the fact as here related is verifiable.

They are not found in insanity itself, and the habit of calling them forms of mania or delusion, is not based on fact or a right study of these cases. I observe that even now, some forms of morbid fears are classed under insanity, or mania of some kind, even when there are no delusions or hallucinations. When the insane have morbid fears such as I have described, or very many others which they may have, and do have, as we all know, they are delusions out of which they cannot be reasoned, and are a part of, and in harmony with other delusions of the insane. But in all the cases to which I have here referred, there are no hallucinations whatever; the patient is as well aware of his delusion as his friends are, and is as anxious to get rid of them as he would be of a sick headache, fever, or paralysis; but he is unable to shake them off until the exhausted brain, of which they are the direct result, is strengthened by hygiene and time, treatment.

Second.—These symptoms may come on suddenly, in some cases almost instantaneously, and when once they appear, they may exist for months and years, varying in intensity at different times, like other symptoms of cerebriasthenia, with which they are often associated.

Third.—These morbid fears are very frequently, though not always or necessarily, the result in whole or part of disorder of the reproductive system.

Excess in the male in the natural or unnatural ways, or prolonged and teasing continence united

with sexual excitation, and, in the female, various slight and superficial uterine erosions, or displacements or lacerations are the common provoking uses of these morbid fears, especially in constitutions where the nervous diathesis predominates.

These fears may exist long after the local difficulty has been cured; in this respect these symptoms follow the law of the nervous symptoms with which they are so often associated. Some of these cases are anæmic, but the majority are not so, and many are models of physical strength.

Fourth.—These morbid fears, rarely exist alone. They almost always appear in connection with other symptoms of neurasthenia, either myelasthenia, exhaustion of the spine, or cerebriasthenia, exhaustion of the brain; most frequently the latter. I think, indeed, that I have never seen a case of morbid fear, such as I have here described, that existed alone, without some one accompanying neurasthenic symptom, or many such symptoms. In some cases, I admit, these accompanying symptoms are few and slight, and can be ascertained only by careful study.

Among those associated symptoms may be mentioned palmar-hyperidrosis, flushing of the face, a feeling of profound exhaustion, insomnia, hopelessness, shooting pains in the extremities, excess of oxalates and urates in the urine, heaviness of the loins and limbs, dilated pupils, local spasms of muscles. Only rarely, however, is there a complete picture in which all these symptoms are represented. Like all these symptoms of neurasthenia morbid fears very often occur in those of great, even enormous muscular strength and endurance; many of them can walk and work all day with muscle and with brain, but in the presence of their special fears they are as infants.

A very frequent accompanying symptom is dizziness. Many of these cases, when they approach the object of dread, or even think of approaching it, are seized with vertigo—sometimes with less defined abnormal sensations. I have seen three cases where an epigastric spasm appears on attempting or even thinking of doing anything which is a dread. I have now under care a patient who tells me that he has a spasm in the stomach whenever he thinks of doing anything where he fears a failure. He describes it as a sudden sinking—a falling, somewhere between the base of the lungs and the navel.

This patient has also a large array of correlated nervous symptoms, such as sweating of the hands, twitching of the eyelids, mental depression, etc. One of these cases had this symptom of spasm—sinking in of the stomach—while at school, and it would come upon him whenever he was called upon, or feared he might be called upon, to recite; even the thought of responsibility, though it might be in the remote future, brought on the attack. The very existence of a morbid fear suggests to us that we search for other symptoms.

Fifth.—The treatment of morbid fear is the treatment of the condition of the brain, of which it is a symptom of the local or general condition on which the brain exhaustion depends; very generally stated this condition requires both constitutional and local treatment. The constitutional treatment includes the whole array of sedatives and tonics, the more

effective being the bromide, and electricity; and counter-irritation at the back of the neck and in the bowels by means of cathartics. The local treatment in cases of disorder of the prostatic urethra in males consists in my own practice of the following procedures: very mild electrolysis with the urethral electrode—application of liquor bismuthi—of iodoform, by suppositories, by sounds, and *dry* cold in the urethra and the rectum.

These cases can be cured, and be permanently cured, but cannot be cured suddenly nor usually by a single prescription. They have been sick before we see them for months and oftentimes for years. The details of the treatment must be varied with the idiosyncrasy of the patient. The causes of failure are three-fold. First, the exclusive use of general treatment by medication, the local irritation from which the symptoms start being undetected. Secondly, the use of stimulants where sedative treatment is required. Thirdly, the want of change in the modes and details of treatment, and perseverance in their use.

A NEW REMOVABLE PAPER BRACE FOR THE TREATMENT OF CARIES OF THE SPINE AND OF LATERAL CURVATURE BY THE INSERTION OF A RUBBER BAND TO EXERT CONTINUOUS PRESSURE OVER THE DEFORMITY.

BY
ALFRED MORGAN VANCE, M.D.

Lecturer Assistant, Hospital for Ruptured and Crippled, New York.
(Read before the New York County Medical Society, June 15th, 1878.)

CASE I.—Lumbar Caries, under the Plaster of Paris Treatment one year; annoying Eczema the result; paper brace then worn one year without causing antecedent lesion; cure.

M. H., female, æt. 4, Louisville, Ky., child of a family in fine social standing, was first brought to the office of Dr. David W. Vandell, in the summer of 1876, for a lameness of left side of a few week's standing. The father himself exhibited choreiform movement of the facial muscles, and was of a decidedly neurotic diathesis. The mother was to all appearance healthy, and family history on both sides free from tubercular diseases. The child was the eldest of three, the other two being in good health, as also this one had been previous to the present ailment. No history of an adequate exciting cause could be obtained from the parents.

An examination soon revealed a caries of lumbar spine with a small knuckle at second lumbar vertebra. The left thigh was advanced and extension resisted by contraction of the flexors. Child was thin and gave evidence of much suffering. The plaster of Paris jacket was applied immediately and a certain degree of improvement followed the same day, *i. e.*, the child was less fretful and seemed to feel the assistance of the support given. The lameness and the peculiar stiffness in gait continued.

The plaster was worn with at least eight or ten reapplications, for one year. During the latter part of this period the child was annoyed almost beyond endurance by an eczema on the whole surface of the body covered by the plaster jacket, which was most

marked over the anterior part of the thorax. This made the removal of the plaster a necessity and the child was kept in bed with emollient dressings applied. It was long then before relief was obtained. While wearing the plaster the general health had improved, and the gait to some extent, though she still walked with a limp. The prominence had not increased.

Dr. Vandell, along with many other surgeons who were using the solid plaster dressing, saw day by day its disadvantages, and frequently expressed a desire for some *removable* jacket, which would at the same time secure the advantages of the plaster. To borrow a classical expression from the editorials of new journals, "we recognized a want long felt."

Up to this time Dr. Sayre had not published his method of making a removable plaster dressing, and I only learned this through a letter under date of May 19, 1878, a portion of which I quote in this connection:

"I have for two years past made jackets removable in cases where it was justifiable, by turning the shirt over from the top and bottom, and then putting on another plaster bandage roller, which gives a nice finish to the cast; and cutting it down through the centre, jacket, shirt, and all, and putting on the edges a strip of leather with hooks to lace over, the same as is used on shoes. I should have published this fact in my book, but my photographs of cases so treated were here, and I was in London.

Shortly before this I had assisted Dr. R. O. Cowling in making some paper splints for fractures and sprains of the extremities, to be used in his demonstration before the State Medical Society. I could not see why the application of the paper could not be still further extended. On removing the jacket one day in July and finding the eczema above mentioned, I took the jacket to my room and built over it my first paper brace. I used the egg and flour paste, very heavy paper, no steel springs, and made no perforations. In two days it had hardened sufficiently for removal, and on showing the same to Dr. Vandell he expressed himself greatly pleased with the experiment, and exhibited it to the summer class at the University of Louisville the same day. Having cut out sufficient to secure a fit, it was laced in front and behind, and when applied to the little patient was found to act as we had desired. Until the eczema was cured it was removed daily, and local applications made. In a few weeks the eczema disappeared completely, and the brace was then removed only once or twice a week for change of clothing. Careful attention was given to the child's general condition meanwhile. The patient was taken to the mountains to spend the rest of the summer, and as I had some misgivings about the durability of the brace, I made a second one also on the plaster jacket. On her return to the city I found she had worn the brace with comfort and without the annoyance of any excoriations or eczema. She had improved in gait, and decidedly in general condition. During the absence from the city, case second, soon to be detailed, had come under treatment, and I had made this brace over a plaster cast or model, taken from the ordinary plaster jacket. This was found to fit much more accurately, and I made one for the first patient. She wore this brace until the following

spring, a period of six months. Soon after she came under my own immediate care, and on May 3d, 1878, I made a new brace finished as artistically as very limited resources would permit. This was intended as a final dressing, and weighed exactly six and one-half ounces. The parents came East with the child that summer, and while stopping at Long Branch consulted Dr. Sayre. On his return to Louisville the father reported that Dr. Sayre had examined the case carefully, pronounced it cured and removed the brace tentatively for one week; that he had made out one quarter of an inch shortening of the left limb and advised a lift in the shoe.

On examination I considered the case cured myself, and the brace was never re-applied. I have frequently seen the child at play since, and am satisfied that no relapse has ever occurred.

I have still in my possession two casts of the back, the first showing distinctly the vertebral prominence, while the second shows only a little fullness so that there can be no question as to the correctness of the diagnosis.

CASE II. Old Dorsal Caries, with fistulous openings on the back; Plaster of Paris one year with most marked improvement; Paper brace fifteen months longer, and cure completed.

T. Z., male, æt. 15 yrs., Louisville, Ky., had been suffering from Pott's disease for six years, when he came to Dr. Yandell for treatment in the summer of 1876. His father in good circumstances had spared neither pains nor money in securing the best advice West and East. All kinds of apparatus had been worn, and the case notwithstanding, had gone from bad to worse. No family history was obtained, nor was any exciting cause learned. All the dorsal vertebræ were involved in the deformity, and a more sharply defined kyphosis is rarely seen. The head sunk down between the shoulders and the thorax, projected far forward, the body being so distorted that he could scarcely manage to walk at all. There were four or five fistulous openings on inner and outer aspects of the left thigh, and from these there was a profuse and very offensive discharge. He had been in bed in this condition for six months. He had hectic fever; was greatly emaciated, and the case altogether was regarded as a hopeless one. He was suspended, and I assisted Dr. Yandell and Dr. W. O. Roberts in applying a plaster-of-paris jacket. From this date improvement began; the appetite, before capricious and dainty, became almost ravenous. He wanted to sit up the next day, and by the fourth day was able to walk about, feeling remarkably well. Open-air life so far improved him that by the fall he went to school. During the summer, however, we had to exercise the most vigilant care in avoiding excoriations; every few days sections would have to be cut out over prominent parts, especially the kyphosis and the sternum. The discharge from the sinuses continued, though it was not so profuse. He wore the plaster for twelve months, though with great annoyance to himself and to us, as about every six weeks a new jacket had to be applied and pads inserted around the prominence to prevent excoriation. The amount of watchfulness and labor required in such cases, any one who has tried to treat bad deformities with the plaster

and has succeeded in preventing accidents, can readily appreciate.

When in the summer of 1877 the paper brace was made for him, his condition was altogether different from that in the preceding year—so much so that the case was regarded as a triumph for the plaster-of-paris, notwithstanding its many disadvantages. The paper brace fitted him accurately, and no fenestræ were cut.

The prominences were provided for by building out on the solid cast in these situations. There were no steel springs, yet this lasted him four months when it was renewed because of breaking down in the side. The patient was delighted with its lightness and thought it immeasurably superior to the plaster as to comfort. In this he became very active and consequently was very severe on his brace. During the next eight months two more jackets were made for him, which were either outgrown or worn out. The last one was made with the steel springs in September, 1878. The sinuses had now all closed but one, this having an oozing discharge occasionally. This jacket was worn until March 13, 1879—a period of over seven months—when it was permanently removed and the case pronounced cured. Over his last solid cast I made him a corset and applied this as a precautionary measure against relapse. This is my customary mode of treatment for convalescing cases. His general health at this time was all that could be desired. He had grown much in size and height, as shown by the different casts I had taken during the last fifteen months; his last sinus had been four or five months closed and I had no reason to fear any relapse. The jacket when removed was unaffected by perspiration, and only in one or two places under the most prominent parts was there any attempt at breaking.

CASE III. Dorsal Caries, with great deformity and incomplete paralysis; paper brace six months with comfort and benefit; then plaster of Paris, three months, extensive excoriations; paper brace again for eight months; cure.

S. M., female, æt. 3 years, came under Dr. Yandell's care in August, 1877, literally clad in steel apparatus. It was wearing a spinal brace with a chin piece, also a pair of long springs with joints at the knees and ankles. These had been applied by a noted adventurer in Louisville. The child was unable to walk without great assistance; was pale and generally anæmic. The disease, as found on examination, involved the upper dorsal vertebræ, the prominence being about one inch in height. There was a marked lordosis from the compensating curve, and a corresponding amount of thoracic deformity. There seemed to be no actual paraplegia, but a certain amount of paraparesis, depending, most probably, on the constrained position of the body. A model of the body was obtained, as in the former case, and three days later a paper brace applied. One week later, when next seen, the little patient was walking and running quite freely. A few weeks later the family went to Chicago with instructions to consult Dr. Edmund Andrews, in case any surgical advice was needed. The paper brace was worn until the following spring, when Dr. Andrews, finding it was giving out in places, wrote to Dr. Yandell for a description of its mechanism, &c. I did not see the

case again until June, 1878, when Dr. F. S. Bell of Louisville asked me to take charge of the patient. I found her encased in plaster of Paris, fretful, and suffering from the heat incident to the season and the jacket. On removing the plaster the skin from the prominence and thorax came off in large pieces, leaving two large raw surfaces. The skin elsewhere was scaly and dirty, and the flannel shirt was bordering on rottenness. Beads, crumbs of bread, bits of paper, and other playthings were found lying at irregular intervals between the shirt and the body. It is not difficult to imagine the part the child played in this operation of removal. While the mother suspended her by means of a towel under each axilla I cleansed the parts, applied emollient dressings over the excoriated surfaces, and protecting these by lint, obtained a cast, over which I made a paper jacket, which, when applied to the patient four days later, weighed a trifle over seven ounces. This was well ventilated by the perforations and strengthened by the steel springs. The plaster jacket I removed was thicker and heavier than anything I had yet seen, and had been worn, according to the statement of the mother, for three months. The parts soon healed, and the case went on to a good recovery. I saw the patient every few weeks, and she wore the brace until May 1, 1879, a period of eight months, when I removed it and discharged the case cured, first applying a convalescent corset, as usual. I have recently heard from the family by letter, and no symptoms of any relapse have occurred.

CASE IV.—Lateral Curvature, primary dorsal, with deviation of one and one-eighth inches; paper band with pads over projecting thorax, for eight months; deviation then, one-eighth inch.

M. T., female, æt. 15 years, in good circumstances, referred to me for treatment in June, 1878, by Dr. Leachman, of Louisville, Ky. The girl was well developed and in good health. The parents had observed with much anxiety a steadily increasing deformity of the right shoulder for one year past. There was a decidedly neurotic element in the family history, especially on the paternal side of the house. The paternal grandmother and an aunt were both the subjects of lateral curvature with considerable deformity. No special exciting cause could be found in the present instance. At my first examination there were present in consultation, Drs. Leachman and J. M. Holloway, both of whom recognized easily a marked degree of lateral curvature, convexity to the right in the dorsal region, with a compensating curve in the lumbar region with convexity to left. The left shoulder dipped considerably. We placed the patient in the prone position on a sofa, and with a string stretched between the spinous process of the 7th cervical and the spines of the sacrum, I measured from this tense line a deviation of the spinous processes in dorsal region of one and one-eighth inches at the point of most deformity. We then suspended her in the usual way and the curve was overcome nearly one-half. A plaster jacket was then applied and from this, after removal, my solid cast was taken, having built out on the side of the concavity so as to make its contour almost normal. Over this the paper brace was made as before described. I had not yet begun to use the rubber

and contented myself with inserting pads of worn muslin between the inner surface of the brace and the projecting side of the thorax. I enjoined self-suspension twice a day, the mother being instructed to employ massage and manual pressure over the lateral prominence. This was faithfully done daily, and once in a week or ten days, at stated visits, I inserted an additional pad, thus forcing the body over into the concavity provided in the construction of the brace. Between June and the February following I applied three braces.

Not because of wearing out or breaking down was this number required, but as I was aiming continually to secure the best possible position by suspension. The braces are all in good repair and the different casts taken show the progress of the case toward recovery.

Feb. 20, '79.—I applied a new brace—the last—in this I inserted for the first time a band of rubber to take the place of the pads, and make constant elastic pressure. At this time, however, the deformity had been very greatly diminished. I placed the patient in the prone position on the same sofa as seven months before, and in the same manner I measured the deviation from the straight line. All that I could make at the point of greatest deformity was a deviation of *one eighth of an inch*. *The spine had yielded one inch in the straightening process in a period of seven months.*

I left Louisville in March and saw the case only three times after applying the brace with the rubber addition. I have not heard from the case since my arrival in New York, and I cannot speak as to the continued improvement, but from the results obtained in other cases more under my observation during the last two months, I have every reason to believe that perfect cure will be attained.

RESUME.

The cases of caries already reported, illustrate the value of fixation in the treatment of this affection; the advantages as well as the disadvantages of the plaster of Paris; the superiority of a light, removable dressing, which fits the body accurately, to the plaster; and the ease with which such cases can be treated independently of the professional instrument maker.

Case IV illustrates admirably the principle of the elastic band although this was not employed in this particular instance.

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HOSPITAL RECORDS.

PENNSYLVANIA HOSPITAL, PHILADELPHIA.

SERVICE OF J. M. DA COSTA, M. D.
(Prepared for THE HOSPITAL GAZETTE.)

SYPHILITIC MENINGITIS—LEAD POISONING.

F. Van Zandt, æt. 25, born in New Jersey, a painter by trade, and married. Admitted on the 13th of November, 1877. Discharged on the 26th of the same month. The patient had primary syphilis three years before the date of his admission to the hospital. Does not remember the appearance of

any secondary symptoms. Was subjected to exposure and hard work while a boy, and has never been strong and hearty. Has been married two years, but has not had any children. One year before his admission he had an attack of constipation unattended by cramps. He never had any paralysis. Has been working very hard of late in white lead (*i. e.*, previous to his admission), and has been very much worried about business troubles. Five weeks ago he had a headache which gradually became so severe as to necessitate his going to bed. It was associated with fever which came each evening and lasted all night. In the morning his clothes were wet and cold from the perspiration. This state of things continued for three weeks, during which time his bowels were constipated, but he had no cramps.

Under medical treatment he got better and returned to his work, but was obliged to again relinquish it on account of headache. He has been losing weight and strength and has had a slight cough for several years, especially in the winter. At one time in the spring of 1876, he spat some bloody mucus.

Upon admission he complained bitterly of his headache, which appeared to be frontal and which was associated with some photophobia. His bowels have been obstinately constipated and moved with difficulty. His wife states he was delirious at times. He has had no vomiting, however, and no impairment of movement, or of sensation.

Upon admission, evening temperature 101; pulse 80; respirations, 24; urine, light orange, cloudy, neutral, 1020, no albumen or sugar: ordered potassium bromidi, gr. xx., thrice daily, and an occasional saline (Rochelle salts), also gr. xx of the iodide of potassium thrice daily. Blisters to nape of neck.

November 15th.—Headache better, bowels open. There is slightly impaired resonance at the right apex with rattle respiration and prolonged expiration. Some enlargement of post-cervical lymphatics observed.

November 18th.—Greatly improved, no pain anywhere, allowed to get up.

November 20th.—Out of bed, looking well.

November 21st.—A great deal better, sleeps well at night, no more headache.

November 26th.—Discharged cured.

The Cystoscope.—We mentioned a short time ago a new instrument for illuminating the cavities of the body which had been invented by Dr. Nitze, and constructed by M. Leiter, maker of surgical instruments in Vienna. The following short description of the instrument is taken from the *Allgemeine Wiener Medicinische Zeitung*, May 13th. The cystoscope, or instrument for illuminating the urethra and bladder, consists of a long tube or catheter, which ends in a point, and into which another tube with very thin walls, containing the optical apparatus, is inserted. A platinum wire, which is heated to white heat, runs through the outer tube, in the tapering end of which a small opening is cut and provided with a well fitting glass. Two different instruments are required here, one only for the purpose of examining the urethra in all its parts, and the other for examining such portions of the wall of

the bladder as would stand perpendicularly to the longitudinal axis of the instrument, whatever may be its position. Therefore, in the first cystoscope, the opening is situated on the convex part of the angle, which is formed by the point and the remainder of the tube, and necessarily on the anterior part of the former; and in the second cystoscope on the concave part of the same angle and on the posterior part of the point. Into the opening of the cystoscope No. 2 is fitted a rectangular prism. Its hypotenuse acts as a mirror in reflecting the rays of light which fall on it. This latter instrument is so contrived that it can be rotated around its longitudinal axis without interrupting either the electrical current or the water supply. The wire is heated and maintained at the same temperature by means of a very powerful constant Bunsen's battery, which has been somewhat modified by M. Leiter. By a special contrivance, the air within the vessels which contain the acids may be either compressed or rarefied, so that the battery, which consists of two elements, can be filled or emptied in the space of five minutes. It can easily be moved, and may also be used for galvano-caustic operations. In order to prevent the heated wire from coming into contact with the mucous membrane, the tube itself is kept cool by means of a continuous stream of water which circulates within its walls through two separate channels, which run into each other at the point of the catheter. The space between these two channels is occupied by an isolated wire. The two poles are represented by the catheter and the above-named wire. A loop made of platinum wire and connected both with the tube and the isolated wire is placed at the confluence of the channels. In this way the wire may be heated to white heat, while the tube remains perfectly cool. The water is supplied from a vessel which is suspended from a considerable height, and connected with an India-rubber tube. Two filters are placed within the latter, at a certain distance one from the other, for the purpose of keeping back any foreign bodies which might happen to be in the water and obstruct the instruments. A special automatic interrupter is provided for the purpose of breaking the contact the moment the water supply should cease to flow. In short, the whole apparatus is most ingeniously contrived, and will doubtless prove a most efficient help to internal examinations. The instruments for examining the stomach, œsophagus, etc., are not yet completed.

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EDITORIAL.

DRESSING FOR A SALAD.

At No. 3613 North Ninth street, St. Louis, Mo., U. S., resides Edward Borck, M.D. So he informs the public, and the "young editor" (as he facetiously calls us) of THE HOSPITAL GAZETTE in particular. Dr. Borck has written a book on "Fractures of the Femur," in two chapters. It is a duodecimo of about the size of "Mother Goose's Melodies." In this book he has given his own opinions and the opinions of other celebrated writers from RHACES (new spelling for Rhazes), the Galen of the Arabians, down to Parke, the Albucasis of Bloomington, Ill. His own opinions, as well as the opinions of others, being usually given in the classical language of Dr. Borck, although he has, by enclosing the opinions of others in marks of quotation, graciously given them credit for the use of words which they had not the skill or judgment to employ.

This book—price 50 cents—for sale "at all the leading book-stores in the United States," was sent to us with a request that we would notice it in our journal. This we declined to do, but not because there was printed upon it in large purple type, "Compliment of the Author," although we might have properly considered why he should have given us his compliments in the singular, and not in the plural, as is the usual custom. We thought it singular at least, if it did not imply a lack of fulness in the compliment; but the real reason why we did not notice it was that we had already paid some attention to it, and more, we thought, than it deserved, while it was in the state of chrysalis, in the form of a communication to the pages of the *St. Louis Medical and Surgical Journal*.

Dr. Borck now recalls the fact that we did favor him with a notice in our editorial of April 11th, 1878; but to use his own elegant language, he was not by this recollection "tranquilled," and in the June number of the *St. Louis Med. and Surg. Journal* he inflicts upon our young, but prematurely bald head, some very hard words, and a good deal more of very bad grammar.

In order to save ourselves from any more inflictions of this sort, we make haste to reply, in the hope that what we now say will be satisfactory to him.

In the editorial remarks to which he refers and takes exception, we said essentially that Dr. Borck's style of argument and discussion was flippant, and that he misquoted and misrepresented well known authors. In our opinion he has wholly failed to show that these charges were not correct. We will also state farther, that his grammar is bad, his knowledge of the whole subject imperfect, his own views of the treatment of fractures of the femur crude, and without either originality or importance, the whole indicating very clearly a limited experience. In short, the book (!) appears to be an effort to realize a large interest—far beyond what the law will allow—from an exceedingly small amount of capital.

If, through our present notice of his ungentlemanly remarks and insinuations, he has obtained the notoriety he so much covets, he is welcome to it, and we congratulate him upon his success.

A REMARKABLE CASE OF MALPRACTICE.

We append the history of one of the most extraordinary surgical procedures which has come to our knowledge. A patient affected with ankylosis of the cervical vertebræ falls into the hands of a homœopath who evidently possesses about as much knowledge of his profession as an old woman. The deformity caused by the ankylosis is so great that the patient's head touches his chest. The physician, or, rather, attendant, accepts the patient's diagnosis of "rheumatism," concludes that the trouble is in the muscles, and advises an operation for the removal of the deformity. The unfortunate patient, reposing confidence in a person *legally* qualified to practice surgery, inasmuch as he possesses a diploma from a chartered institution, places his life in his hands. On the appointed day the patient is etherized, and his body and shoulders bound to the table by bandages. Additional bandages having been applied to the head, traction was made on these with all the strength that two men could exert, until the neck was straightened. During this pulling, sudden cracking noises were heard twice, but this caused no

alarm to the surgeons (?) present, who continued their efforts and finally succeeded in taking a human life, by forcibly breaking the man's neck. The anchylosed union was fractured and the patient died on the table.

If cases such as this do not incite the people to insist upon a higher standard of attainments for those to whom their lives are entrusted, we do not believe that college conventions, societies, or learned addresses delivered periodically by men connected with diploma mills will have the slightest effect. The case referred to gives evidence of the grossest ignorance and most bare-faced assumption on the part of a person duly accredited an M.D. by the State laws. It is thus proven that the law fails to properly provide for the lives of the people, by granting a license to practice to men of this stamp, who, in defiance of all knowledge of anatomy, surgery and pathology, applies the rude principles of mechanics to correct the deformities of a fellow creature. We should expect more from a barbarian, about as much from an idiot.

There is one thing to be regretted in this case, and that is that the law is powerless to reach the perpetrator of this deed—this bold innovator in surgery. A bill for manslaughter cannot be brought against him, we believe, and a suit for malpractice would be of little or no use.

For the report of the testimony taken before the Coroner in this case we are indebted to the *Tipton (Iowa) Advertiser*:

An event no less sad than strange transpired at our neighboring village of Clarence, last Friday morning, resulting in the sudden death of Mr. Wm. Ferguson. Deceased was a cousin of Mr. J. P. Ferguson, a well-known resident and long-time post-master of Clarence; and, like the latter, Mr. W. Ferguson served his country long and faithfully in the war of the rebellion—contracting during such service the germs of that terrible disease, inflammatory rheumatism. Later in life this enemy became an active one, and for several years he has been a terrible sufferer, his long suffering, at times, making him a cripple, while for three and a half years the same tyrant had held his head bent prone upon his breast. In this condition, and being also suffering from a sensitiveness which often made it torture to be moved, Dr. J. A. Carson, a graduate of Hahnemann Medical College, Chicago, (Homœopathic), and who has been located at Clarence in a reasonably successful practice for something over a year, was called to attend to the case. After two weeks of treatment, during which there was manifest improvement in the patient's general condition, the doctor determined upon an effort to straighten the neck—having previously treated the muscles involved, and concluded, from repeated trials with the hands, that the operation might be made a success.

The case is perhaps without a precedent in the annals of surgery, and is, in addition to its interest

from a professional or scientific standpoint, the peculiar circumstances have awakened lively curiosity and comment in all parts of the country where the result has become known, we have taken the time and trouble necessary to present herewith the testimony, substantially in full, of all the material witnesses who were examined at the inquest, held by Coroner Sweet on Friday and Saturday. The *post-mortem* examination was conducted by Dr. Hubbell, of Mechanicsville, a homœopathic physician of long practice, and Dr. Anderson of Clarence, a physician of the regular school. Dr. Robinson, who assisted Dr. Carson in the operation, is a fellow-disciple of Hahnemann, who is located, we believe, at Olin. The "appliance," to which frequent reference is made by the witnesses, needs to be seen to be appreciated. It consists of an iron bar, reaching from the waist, where it was to have been strapped to the body, to the top of the head. A transverse bar under the shoulders was armed with a strap at each end to go about either arm, while the upper end was similar to a photographer's "head-rest," with a strap to buckle over the forehead. It was wound with cloth to mitigate the hardness of the material—but at the best looked as if it might have been resurrected from the dungeons of the Inquisition.

For other circumstances and facts in connection with the affair the reader is referred to the following abstract of

THE EVIDENCE.

James W. Baugh—Hardware merchant; live in Clarence; have been acquainted with deceased two years. He was afflicted with inflammatory rheumatism which had drawn his head to one side and forward kind of down on his shoulder. Dr. Carson, of this place and a Dr. from Olin were to straighten his neck and I called in to see the operation. Mr. Ferguson seemed perfectly willing. They had an appliance to hold his head in position, and after administering ether had succeeded in getting his head in a natural position with his body when the appliance was buckled on. He laid pretty quiet; we were making remarks back and forth, one of the surgeons saying that he had stood it very well and would come out all right; I noticed nothing unusual; breathed all right; saw him open his eyes; saw no change of color. Shortly some one remarked that he was about to faint, raised his head and took off the appliance and water was thrown in his face and ammonia used; Mr. Ferguson and got some port wine and everything possible was done to revive him, but unsuccessfully, as he died in a few minutes.

When administering the ether the patient said: "If you want that to do any good you will have to make it stronger." When coming out from under the influence of the ether I do not think he recognized anyone. From the time he opened his eyes until he finally expired it was from 5 to 10 minutes. After he was more under the influence of the ether he was asked how it was working now and he said pretty well. He was not under the influence of the ether at any time so but what when they hurt him he would cry out "Oh!" and "Oh, my God!" He did not seem to be utterly insensible to pain at any time, unless when the appliance was put on, and he made some noise after that.

His neck being very stiff, it took considerable effort to bring it nearly straight. It was straightened very gradually, and I heard, once or twice, some little noise like something giving away. Some thought it was the bandages, and Mr. J. P. Ferguson said, "Hold on, something is giving way." It took the strength of one man, and I don't know but two; Dr. Carson was at first holding the bandage about his head, and afterwards I held it while he examined the neck. I held the bandage and was using considerable effort to bring the head in a nearly natural position, Dr. Carson took hold of the patient's head with both hands and assisted.

Don't know in regard to patient's vitality before operation; had been much reduced but was improving some latterly. He had been here about three years, and told me his neck had been bent some fifteen months before he came.

Mr. Beatty was recalled subsequently, and examined by S. V. Landt, testifying in substance as follows:

When I first heard the noise like breaking or tearing, Dr. C. was pulling on the bandage on the patient's head, and I was holding my knee against his arm to prevent his being pulled off the table; it sounded as if cords or muscles were giving way. Some one said something about breaking patient's neck, and Dr. C. said it took a good deal to break a man's neck. When they were adjusting the appliance, and I held the bandage while Dr. C. made an effort to bring patient's head nearer a natural position, I heard a second snapping. It was after the first noise, or snapping, that patient asked to have his head let down—from two to five minutes after, more or less. Am not positive of hearing more than two of the noises described; both sounded like a sort of click or tearing loose—it was not a succession of sounds; it was a single sound each time.

It could not have been more than two or three minutes after he asked to have his head let down until it was adjusted in the appliance. After that we put some cloths about his head and the ether was taken away from his nose; after this the patient opened his eyes.

Have known deceased well; some three months ago he got so he couldn't get in or out of bed without help; the night before the operation he told me the doctors were going to straighten his neck in the morning, and he did not know how it would come out, and didn't care fifteen cents which way it went; have heard him talk this way before.

Was present when patient expired and some minutes after, and then went to dinner; do not know if any person was with corpse while I was gone. After returning, Eastman and I were together in the room, and he remarked he believed the neck was broken, moving the head of deceased and asking me to put my finger on a certain spot where he said I could feel the slipping of the bone.

J. P. Ferguson.—Live in Clarence; am postmaster; known deceased over thirty-six years. He has been terribly afflicted with rheumatism for about three and a half years, which had drawn his head toward the right shoulder and down toward the right breast, leaving a very small space between the chin and right breast. One day deceased said to me that "Dr. Carson was going to straighten his neck." I

said that your neck has been in that position so long that I am fearful, and asked him if Dr. Carson thought it could be done? He said "Dr. Carson did." Then I asked him, "Is Dr. Carson going to perform the operation alone?" The deceased said, "No; he is going to have the professor from the Hahnemann Medical College in Chicago." At another time deceased told me that the professor was coming out in this section; that he had an operation to perform at Olin, and would come from there here. About the time the operation was to commence I went down and found the patient, Wm. Ferguson, placed on his back on a board, with Drs. Carson and Robinson in attendance, and also Beatty and Eastman and Thom. Soon after this ether was administered, bandages placed around the patient's head and extending around the body and Dr. Carson commenced to pull on end of bandage which he held, when I said, "look out; you will choke the patient to death," and then they moved bandage away from the throat and the pulling went on. About this time commenced a cracking sound, when I said, "hold on, gentlemen; something is giving away, (and I think I said in the neck). Some one said, '*its the bandage,*' but I said, no." Dr. Carson made a rapid examination of right side of patient's neck and said, "I think it is all right." About the time I heard the cracking noise the patient kept groaning as from pain. Again the pulling commenced, the appliance was placed under the patient, the straps buckled on his hips and shoulders and an effort made to get patient's head into place in the appliance; but it would not go in, and Dr. Carson said the head must be brought up more, and it was done and an effort made and the head dropped to its position in the appliance; then the strap over the head was buckled, and Dr. Carson said, "He had stood it well and was coming around all right. I now noticed a backward movement of patient's head and an attempt to cough, with a rolling of the eyes backward in the head, and I said, "he is going; what you do, do quickly." Dr. Robinson said, "he is fainting." All was done that could be done with the appliances at hand, but he died.

When I heard the cracking noise spoken of, Dr. Carson was pulling end of bandage that passed over patient's head and seemed to be using a good deal of force. Think it was from two to five minutes from the time ether was removed from patient's nose and mouth until he was taken with sinking or fainting spell. Heard patient's wife say that some of her friends objected to an operation being performed, saying that it would kill him. Patient always told me that he wanted his neck straightened, if it could be done. The pulling was steady, there was no jerking. Had but one conversation with Dr. Carson after the man died. It was at the request of the widow that an inquest was held. I think T. J. Garrison telegraphed the coroner and he did so at my request.

C. C. Thom.—Reside in Clarence; 23 years of age; have been acquainted with deceased two years; was present at operation for the purpose of straightening his neck. Patient was placed on a board or temporary table, one strip of muslin being drawn about his left shoulder and another about

his head—both the ends of the former being held by myself on the right side while Dr. Carson drew on the ends of the latter from the left side in order to straighten his neck. Can't say as to how much force it took; don't think the Dr. exerted all his strength. The patient was under the influence of ether, but seemed to be sensible to pain as he made frequent exclamations of "Oh!" and groans.

I heard no noises that I thought were produced by the tearing of muscles or the breaking of bones. As I stood almost over him my head was from two to two and a half feet from patient's face. During operation heard a noise like some one cracking his knuckles; it was not at this time that the patient made exclamation of pain; think he made exclamations both before and after the noise. Heard Mr. J. P. Ferguson say "Hold on," etc., but can't say whether it followed the cracking noise. The pulling was all done on the bandage about the head, the other being for the purpose of holding the patient on the table. During the whole operation I held the bandage about the shoulders. The operation went on after the cracking noise, but can't say if the head was brought to a more erect position; at the time of the noise the appliance was not under the patient—should think it was put on five to ten minutes later. At this time the Dr. was rubbing neck and working at the head; can't say whether the bandage on head (then being held by Mr. Beatty) was being pulled, that is, how hard it was being pulled. Think it was five minutes from time appliance was put on before the straps were buckled; after appliance was placed under body there was more arrangement of the head, but whether it was turned further toward perpendicular I don't know; have no recollection of any cracking noise while patient's head was being placed in appliance, but patient made exclamations of pain.

After his head was placed in appliance the ether was removed from mouth and nostrils and it was probably five minutes later that he showed signs of fainting. At one time patient said, "Lower my head!" This was after the bandages had been used and after the cracking noise I heard, as before noted; how long after I can't say. After the patient was in the appliance and the anæsthetic removed I saw him open his eyes and look at Dr. Robinson; thought at the time that the look was conscious; he was asked about the straps, but I heard no response; did not see him close his eyes, and do not know how long they were open; recollect no groans after this; noticed no muscular movement of any part of the body at the time he opened his eyes.

Was present before operation commenced; heard Dr. Robinson ask patient in regard to his health, etc., and I only remember that the patient said that he was too young to go in that position all his life; said that he was thirty-seven years old. Remember patient asked the doctors if they would have any objection to one of the other doctors being present, it being the request of some of his friends that Dr. Yule be present; they replied that they had no objection, and I went to Dr. Yule and told him what was wanted; he said he was called to the country and could not be present; don't know whether he went to the country or not. At this time Mr. J. P.

Ferguson was present; did not hear him make any objection to the operation.

Was present when patient died; did not remain any length of time; after appliance was removed, the head of patient inclined to its old position. Did not hear the wife of patient object to the operation. When I saw Dr. Yule I told him the patient requested his presence; he said he had to go to the country; did not say he did not want to see them kill the man.

Ed. Hoskins.—I heard before I went in to see the body that the deceased's neck had been broken and when I went in I took hold of the deceased's head and I found the neck stiff and when it moved up and let loose of it would go back to its old place and I told Sam Munn the neck was not broken and then I left. When I came back after dinner Eastman was moving the deceased's head and it moved very easy to what it did when I had tried it before dinner.

Miss Nora Ferguson.—Live at Clarence; age 18; acquainted with Dr. Robinson of Olin; have had him as a physician for myself; am own cousin of deceased and at his house told him of knowing Robinson. Carson said he knew Robinson slightly in Chicago.

Dr. A. S. Hubbell.—Reside in Mechanicsville; 42 years old; physician. Have examined the body of Wm. Ferguson, deceased, and found a complete anchylosis of the cervical vertebræ with the exception of the union between the atlas and axis. Between the 2d and 3d cervical vertebra I discovered a fracture of ankylosed union, also a fracture of the anterior inferior, spinous process, also of the left spinous process. Found considerable ecchymosed condition of the superficial fascia contiguous to the fracture. Discovered no congestion of the spinal cord. There is a small artery close to this fractured spinous process—whether it became divided by the fracture or by an accidental cutting in dissection I cannot tell.

From what I discovered—that is, all the fractures—I consider them enough to produce death. In straightening, under ankylosed condition, there would be a parting of the union upon the right side, which would stretch spinal cord and produced death. We found no ecchymosed condition of the spinal cord; it seemed to be intact. I do not think an elongation of the spinal cord would produce instant death; the spinal cord after death would return to natural position.

Dr. Hubbell was subsequently recalled, adding to his testimony as follows:

Make examination of the heart and lungs of deceased. Found heart not organically diseased; should consider it in a normal though weakened condition. Lungs not particularly diseased; dependent portions next back inflated and discolored with stagnation of blood in capillaries.

Should say that condition of patient was low; any surgical operation, such as amputation of a limb or any operation causing great pain, would be attended with great danger.

Ques. In this case, if you had found no anchylosis and no injury to spinal cord or any part, except muscular injury, and death ensued after an operation involving the consequent pain and suffer-

ing, where an anæsthetic had been used in reasonably large quantities for such an operation on a person in the state of health in which this man must have been, what would you assign as the cause of death?

Ans. The shock to his nervous system and the effect of the anæsthetic on his weakened heart.

Q. Would it be possible for a patient to speak after having sustained a fracture of the cervical vertebræ, or interruption of anchylosed condition, as in this case?

A. Possibly, immediately after; but cannot conceive that in ten seconds it would be possible for him to do so.

A. With my knowledge of this case I should not have deemed it prudent to have undertaken the operation.

A. If I had a case where I was satisfied in my own mind that the difficulty was due entirely to muscular contraction and that there was no anchylosed condition of the vertebræ, I would not hesitate to perform an operation. All the difficulty would be the danger from shock to nervous system and use of anæsthetic.

A. It is difficult to ascertain in a living subject whether there is complete ankylosis or not, and especially of the cervical vertebræ.

Dr. E. F. Anderson.—Live at Clarence; 44 years of age; practicing physician. Made a *post mortem* examination in conjunction with Dr. Hubbell. Cutting through superficial fascia of neck we found anchylosed condition; the muscles were in bruised condition; also discovered fracture of union existing between 2d and 3d vertebra; also fracture of transverse process on left side of the 2d cervical vertebra. Dr. H. cut down on the left side and I was therefore unable to tell whether the cervical artery was severed by the fracture or cut across by a knife. From the fact that the transverse process was broken from the foramen through which the vertebral artery passes and from the extravasation of blood about the region of the fracture, we thought it was lacerated at the time the fracture took place. The cause, ossification existing between all the vertebræ except the first and second. We did not open the sheath that envelopes the spinal cord. I could put my finger in the space between the separated vertebræ. In my opinion such a fracture would inevitably produce death.

I have heard the testimony of Dr. Hubbell, and agree with him, except that if elongation of the spinal column occurred, I don't think it would return to its natural position after death. We could not make out that the spinal cord was elongated; we did not examine it, not having proper instruments. I considered patient's vitality low.

A. With my knowledge of the case I would not use the appliances that were used to overcome the curvature. I would consider it unprofessional to use such appliances and the force that was used in connection with them. I have never read any author justifying such an operation. If I had come to the conclusion that it was muscular contraction alone, I would not have hesitated to perform the operation.

Contrary to Dr. Hubbell's testimony, I think the breaking up of the muscles would have made a noise

that could be heard. We can tell at a *post-mortem* whether a fracture occurred before or after death, and in this case I conclude the fracture occurred before life was extinct.

THE VERDICT.

STATE OF IOWA, Cedar County, ss.

An inquisition holden at Clarence, in Cedar County, on the 23d day of May, A. D. 1879, before L. L. Sweet, coroner of said county, upon the body of William Ferguson, there lying dead, by the jurors whose names are hereto subscribed: The said jurors upon their oaths do say, after having heard the evidence and examined the body: We do find that the deceased came to his death by a fracture of the vertebræ of the neck while undergoing a surgical operation in the hands of Drs. Carson and Robinson on the 22d day of May, 1879, at Clarence, Cedar County, Iowa.

Given under our hands this 24th day of May, 1879, at Clarence, Cedar County, Iowa.

H. M. ANDERSON,
L. B. SIMMONS,
ALBERT WILSON.

I hereby endorse the within verdict.

L. L. SWEET, Coroner.

SOCIETY PROCEEDINGS.

MEETING OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, JUNE 23d, 1879.

Dr. Ap. M. Vance, read a paper entitled, "A New Removable Paper Brace, for the treatment of caries of the spine, and of Lateral Curvature; by the Insertion of a Rubber Band to exert Continuous Pressure over the Deformity," published in this number of THE HOSPITAL GAZETTE. The author then proceeded to demonstrate before the society the manner in which the brace was made; an ordinary plaster jacket was first made, allowed to harden, and then cut down, the inner surface carefully smoothed, and then a solid cast made, by filling the jacket with plaster of-Paris. Over this cast, the paper brace was made in the following manner; cotton-flannel, intended to form the inner surface of the brace, was stretched tightly over the cast, and to its outer surface a paste was applied, consisting of one part of white glue, two parts of oxide of zinc, and six parts of hot water. Over this there were put horizontal strips of brown manilla paper, one and a half inches wide, each strip overlapping the other, until the cast had been covered in front and behind. Over this, steel springs, such as were used in hoop-skirts, were placed, $1\frac{1}{2}$ ins. apart, held in place by stout thread, then another vertical layer of paper, and finally a roller tightly applied. This required twenty-four to forty-eight hours to harden; after this it was cut down in front, lined, bound with thin leather along the edges, and eyelets inserted down the front. For the purpose of ventilation, pieces about the size of a dollar were cut out, care being taken to avoid the springs. In conclusion the author stated that caries and lateral curvature can be advantageously treated both by the plaster of Paris jacket and by the paper brace; the latter having the advantages of 1. Lightness. 2. Ventilation. 3. Durability. 4. Perfect fit. 5. That it can be easily removed and reapplied.

The president having called upon Dr. Frank H. Hamilton, he spoke as follows:

I came in rather late, Mr. President, and have not heard all that Dr. Vance has said, but I have seen enough to enable me to form an opinion, and to justify me in saying that Dr. Vance is working in the right direction. There is an evident tendency in the minds of surgeons to return to those forms of apparel, as supports in cases of the spine, which enclose the entire body, and thus distribute the pressure. Beginning with the plaster-of-Paris dressing, surgeons have been of late devising various modifications with a view to its improvement, all, however, involving the same principle, namely, the distribution of the pressure. The tactical supports employed, in various forms, by certain specialists, were constructed so as to make pressure only upon a few points, with the idea that being open they were more cool and comfortable, and that they permitted to a certain extent the exercise and development of the muscles. This is no doubt true, but then they do not probably give equal support and stability to the spine when the seat of disease is below the middle of the dorsal vertebra; and besides they are expensive and can only be constructed and used by experts,

But the plaster splint will sometimes cause excoriations and ulcerations, which danger is all the more to be apprehended, because it is concealed.

The effort of Dr. Vance is, to remedy some of the well-known defects of plaster bandage—to furnish a support which will fit equally well to the surface of the body, but which is more enduring, that is, less likely to break down, and which can be removed and replaced at pleasure; which, also, can be made and applied by any surgeon, without resort to mechanics or specialists. Although in some sense it may be no worse for the patients to be sent to specialists in the large cities, yet they are at least thus deprived of the healthful influences of the fresh air of the country, and of the comforts of home. It is true that in accomplishing this he has had to sacrifice some of the simplicity of the plaster dressing but he has not placed it beyond the ability of any tolerably ingenious man to make and apply.

Both of these forms of apparel serve a very useful purpose when the seat of disease is below the middle of the spine, but neither of them serve any purpose when the disease is situated higher, without considerable modification—such as vertical, posterior braces, head rests, shoulder straps, &c., which other forms of apparatus usually supply.

The principle involved in the plaster splint and this of Dr. Vance, and Dr. Wyeth, is the same as the construction of a *corset*, such as was made by the late Dr. Wood, and which may be made by any ingenious and expert corset maker. It is uniform distribution of the pressure intended to support the spine, as opposed to the less distributed pressure made by the metallic apparatus hitherto or latterly most employed by orthopædists.

The corset, made to extend up to the last cervical vertebra, and properly fitted, and supplied with shoulder braces, seems to me therefore, to meet all the indications now sought to be answered, more completely than any other, and perhaps it is to this we are finally returning and it is this which I have used almost altogether of late.

Dr. Sayre agreed with Dr. Hamilton that this

apparatus of Dr. Vance was a step in the right direction, he liked it so much that he did feel like commenting without commending. Still he must say that where excoriations were caused by the plaster jacket they were owing to lack of skill on the part of the one who applied it. What was desired was something that every medical man could employ as well as an expert and this was the case with the plaster jacket, if the directions were but followed minutely. The great secret of success consisted in having the plaster follow all the inequalities of the surface, as, if the prominent points were covered, chafing was sure to result and be followed by excoriation. An elastic, skin fitting shirt was necessary and the plaster bandage must not be drawn tightly but laid on and followed with the hand in order to accommodate it to all the unevennesses of the body. Hence he saw no necessity of taking the additional trouble imposed by Dr. Vance's method, as the more perfect the fit the better did the apparatus answer the purpose, and Dr. Vance, according to his own description, smoothed off the inner surface, and thus prevented it from being a perfect fit; nothing could be better than the fit obtained from the body itself. In caries it is absolute quiescence that enables the patients to get well; hence the cutting down was injurious. In support of this latter statement, Dr. Sayre quoted from Golding Bird, in England, and Dr. Walsberg, in Germany, both of whom regarded the integrity of the plaster-of-Paris jacket as one of its principal advantages.

Dr. Wyeth would not accept any one apparatus for all forms of Pott's Disease; the spinal column was long, and it was hardly likely that any one apparatus should answer all the requirements for all forms of disease in any part. Dr. Vance's apparatus was not applicable to caries situated above the fourth dorsal, as it afforded no support to the head, and hence could not be used for disease situated high up. For disease in any of the vertebrae from the fourth to the eleventh dorsal any apparatus that fixed the thorax would answer; he believed that Dr. Vance's did this, and had some advantages which would make it very serviceable in some cases; but disease of any part of the spinal column below the eleventh dorsal could, he thought, be best treated by his (Dr. Wyeth's) apparatus.

Dr. Gibney thought that, so far as his experience went, Dr. Vance's movable jacket was a great advance on the plaster-of-Paris. He did not care here to discuss the merit of braces; it was easy to find fault; but his results justified him in saying that many of the objections urged against metallic supports were groundless.

Dr. Vance, in closing the discussion, answered many of the objections that Dr. Sayre had brought up against the movable jacket.

Permission having been granted to Dr. Hamilton to say a word in explanation, he said: "I wish to say that when I affirm that the principle of construction in Dr. Vance's splint is correct, I do not intend to admit that it makes extension. This doctrine I contested some weeks since before this society, when Dr. Wyeth presented his ingenious modification of the plaster splint. I hold that it is impossible to make permanent upward extension against the walls of the chest, however tight

ly the apparatus is applied. If it were applied as tightly as it could be drawn—and no one pretends to do this—still the form of the bony walls of the chest would be conical, with its base downwards, for it is only the muscles which give the chest an expansion above, and these could not be used as points of support for extension or counter-extension. The apparatus must, therefore, slide up; or, what is the same, the body must slide down in the plaster case, certainly if the patient is permitted to breathe at all with his ribs this must be the fact. I do not agree, therefore, with Mr. Golding Bird, that Dr. Sayre's dressing substitutes a *pull* for a *push*. This apparatus, like every other form of apparatus, which supports the spine adequately, effects its purpose by pushing or bracing the body into a comparatively straight position, and by securing comparative, if not absolute, immobility.

Dr. Sayre replied that the plaster jacket neither pushed nor pulled but simply held the body in an improved position.

After some pretty sharp cross-questioning and answering, by Drs. Wyeth and Sayre, the society adjourned.

HOSPITAL FORMULARY.

PHARMACOPŒIA OF THE PENNSYLVANIA HOSPITAL.

GARGARISMA.

1. *Gargarisma Composita.*

℞ Potassii Chloratis.....	℥ ij
Rhus Glab.....	℥ j

M.

Put in a pint of boiling water and simmer to 3/4 pint in an earthen vessel, and then strain; use as a gargle as directed.

LINIMENTA.

3. *Linimentum Tiglii.*

℞ Ol. Tiglii.....	f 5 j
Ol. Olivæ.....	f 3 vi j

M.

4. *Linimentum Chloroformi Compositum.*

℞ Chloroformi.....	f 3 ij
Tr. Aconiti Radicis.....	f 3 ss
Aq. Ammoniac.....	f 5 ss
Ol. Olivæ.....	f 3 v

LIQUORES.

2. *Liquor Chloral.*

℞ Chloral.....	℥ j
Aquæ.....	f 5 j

M.

Dose, one to two teaspoonfuls.

LOTIONES.

1. *Lotio Nigra.*

℞ Hydrargyri Chloridi Mitis.....	gr. iij
Liquoris Calcis.....	f 3 j

M.

2. *Lotio Plumbi Acetatis et opii. As local anodyne.*

℞ Plumbi Acetatis.....	gr. x
Tr. Opii.....	f 3 iss
Aquæ q. s. ad.....	f 3 j

M.

MISTURÆ.

1. *Mistura Ferri Arsenicalis.*

℞ Vini Ferri.....	f 3 iij
Liq. Potassii Arsenitis.....	
Syrupi.....	aa f 3 ss
Aquæ.....	f 5 ss

M.

Dose, one teaspoonful, diluted, after meals.

2. *Mistura Antimonii Composita.*

℞ Vini Antimonii.....	f 5 j
Syr. Ipecac.....	f 3 ij
Tr. Opii Camph.....	f 3 j
Spts. Ætheris Nitrosi.....	f 3 ij
Ext. Glycyrrhizæ.....	gr. xv
Aquæ.....	f 3 ij

M.

Dose, one to two teaspoonfuls.

3. *Mistura Acida Astringens.*

℞ Acidi Sulphurici Arom.....	m xl
Ext. Hematoxyli.....	℥ j
Tr. Opii Camph.....	f 3 iv
Syrupi Zingiberis q. s. ad.....	f 3 j

M.

Dose, two teaspoonfuls.

4. *Mistura Cretæ Composita.*

℞ Mist Cretæ.....	f 3 v
Tr. Catechu.....	
Tr. Opii Camph.....	aa f 3 iss

M.

Dose, a teaspoonful.

5. *Mistura Olei Phosphorati.*

℞ Olei Phosphorati.....	m xv j
Olei Gaultheriæ.....	m viij
Muc. Acaciæ q. s. ad.....	f 3 j

M.

Dose, one to two teaspoonfuls.

6. *Mistura Potassii Chloratis et Ferri.*

℞ Potassii Chloratis.....	℥ ss
Tr. Ferri Chlor.....	f 3 j
Aquæ q. s. ad.....	f 3 j

M.

Dose, one teaspoonful.

CORRESPONDENCE.

COUNTER-PRESCRIBING.

MR. EDITOR.—In THE HOSPITAL GAZETTE for the 21st ult. there appeared a communication over the signature A. H. G., commending your course in denouncing *counter-prescribing*, designed, I infer, however, to prejudice me in my business relations with physicians who are not acquainted with me. Such an attack under the protection of the initial signature, of itself, would receive, as it deserves, only my silent contempt, but that the well known character of THE HOSPITAL GAZETTE, as an independent professional journal, gives to all communications found in its columns a character and importance, and strangers might regard silence, in some cases, as indicating the truth of the statements. To the better portion of the medical profession in this city, with whom I have had continued and intimate relations for seventeen years, no reply is needed; but at their request and that strange physicians may not think

ill of me, I beg to state in simple words the extent of my offending in the instances referred to by A. H. G.

First—A woman, colored, with her sick child called at my establishment and importuned me to suggest some soothing medicine for it, the little one being very restless. Her request was prefaced with a statement that the child had been under treatment for months and no relief, nor promise of relief had come. I counselled her to seek proper medical advice, but because of the child's extreme restlessness at that very moment, she asked, as a favor, for something for immediate and temporary use. I granted this request, my conscience approving the performance of duty, and still continues to approve, notwithstanding A. H. G.'s highly colored and insidious explanation. The dispensing of this one bottle of soothing medicine (a bromide mixture) is recklessly termed "a treatment for two weeks." It would seem, that from the leisure at his hand, for the watching, gathering and arranging of the fancies on the one side, that A. H. G. could have gained credit for himself by investigating the facts in the case, calling on "Ernest Molwitz, the druggist, corner 54th street and 6th avenue" in the course of said investigation, especially as in his communication, my name was prominently mentioned and my address given in full. It would have been the dictate of unprejudiced reason to exhaust all the sources of information before rushing into print, *if the whole truth was desired*. The failure to call upon me, knowing my connection with the case and my address so well, may cause some unfavorable comments upon A. H. G.'s real purpose, but it is not my intention to question his purpose—rather to suggest his avoiding doubtful modes of procedure hereafter when engaged in investigations.

Second—To the practitioner there is a very thinly clad disguise to cover the purpose in the next case, and it clearly shows that this second accusation is merely a mother to the first. A. H. G. prescribed Kress' Acidulated Liquid Pepsin, and the prescription was brought to us. We had six preparations of Acidulated Liquid Pepsin, but we had never heard of Kress's. We therefore did not hesitate to dispense a preparation which has stood the tests of years, and which is made of Scheffer's Pepsin, prepared according to the published formula in the "Proceedings Am. Pharm. Ass'n," 1873, page 147, and formula for Liquid Pepsin in *Am. Journal Pharm.*, January, 1871, and February, 1872.

As a matter of course, when a preparation is in demand we provide a supply, but not before. We gratify a doctor's extremest whim, ever and without exception, as we fully appreciate the value of his confidence. Please let me add that it seems but proper for us, under the circumstances, to express not only our acquiescence in the opinions as to counter-prescribing, published in THE GAZETTE, but our great pleasure in the positive and outspoken style of the journal in the expression. It was an untried field for medical journalists, though its necessity was as apparent as its beginning was hazardous. The interests of both professions will be best served when the practice of counter-prescribing is entirely abolished, and we look forward with pleasure to the time when law will forbid it, and

popular opinion prevent it. The small performances of druggists and doctors—the commissions, the favors, the preferences—will disappear, medicines will be furnished at more reasonable rates to patients, impositors in both professions will go to the wall, and advice will come from its proper source, as will medicine.

As we are now situated, however, pharmacists are hourly bothered by patients for advice and medicine. Poverty comes pleading, or self-assurance makes demands upon us, and we must appear uncharitable or ignorant if we drive them from our counters. Fair minded physicians know the druggist's trials at present, and are certain of the justness of their censure before they speak it, and are more than certain, are bound by duty, before they publish it.

There have been and ever will be cases presenting themselves to the druggist, which certainly seem to encroach upon the physician's domain. We allude to paregoric, brandy or Dover's powder cases, as examples. Patients present themselves, state their ailments, suggest simple remedies and enquire of the druggist whether such remedies would not be effective. Every reader of your journal knows of such a case. Shall the druggist refuse to open his mouth at such a time? If one does remain silent his neighbor will certainly laugh at the strained virtue; answer the patient as anybody else of ordinary intelligence would, and thereby secure the trade for himself.

When perfection is reached in prescribing, it will be reached in dispensing, and not before.

Respectfully yours,
ERNEST MOLWITZ.

To the Editor of THE HOSPITAL GAZETTE.

DEAR SIR.—I have been accused of writing an anonymous letter to the GAZETTE for June 21st, 1879. I disclaim any such intention, and acknowledge that I, the undersigned, was the author of the correspondence on Counter-Prescribing in said number of the GAZETTE, which was signed "A. H. G." My reason for signing it with my initials was because it is my usual way of signing prescriptions. Also, I wrote the letter at my own suggestion, believing I was only doing justice to the profession.

By giving this space in the next number of the GAZETTE you will confer a great favor, and thus prove that I am neither afraid nor ashamed of what I have done.

Respectfully,
A. H. GOTT, M.D.
203 West 52d street.

NEWS ITEMS AND NOTES.

The American Academy of Medicine.—This association of physicians was organized September, 1876, at Philadelphia, during the sessions of the International Medical Congress, when Traill Green, M.D., LL.D., of Easton, Pa., was elected its first President. Subsequently, meetings were held in New York (1877), and in Easton, Pa. (1878), at which Frank H. Hamilton, M.D., LL.D., of New York, and Lewis H. Steiner, A.M., M.D., of Frederick, Md., were re-

spectively chosen as Presidents. At these meetings the organization was more thoroughly perfected, and numerous accessions were made to the membership.

The objects of the Academy are thus broadly stated in its Constitution :

First.—To bring those who are alumni of collegiate, scientific and medical schools into closer relations with each other.

Second.—To encourage young men to pursue regular courses of study in classical or scientific institutions before entering upon the study of medicine.

Third.—To extend the bounds of medical science, to elevate the profession, to relieve human suffering, and to prevent disease.

The following extract from the annual address of Dr. Frank H. Hamilton, President of the Academy, September, 1878, fully explains the purposes of its institution :

"The founders of this society sought, especially, by its organization to aid others who are engaged in similar efforts in this country, but who are working by other means, to remedy a great, and universally admitted evil, namely, imperfect preparation for the study of medicine, and its almost inevitable sequence, imperfect qualification on the part of those who are admitted to practice.

"There are many things which we can do more or less effectively. We can labor to create a sound public sentiment, which shall in some measure influence medical colleges and medical men, but more especially to create a sound sentiment among the young men who are contemplating the study and practice of medicine. They must be persuaded that it is unbecoming for them to enter upon the study of a learned profession without suitable classical and scientific knowledge, and without mental discipline; that it is impossible for them without this knowledge and discipline to make any respectable attainments in the science of medicine, and that it is shameful for them to enter upon the practice of medicine, and attempt to minister to the physical sufferings of their fellow-beings without a competent knowledge of their science.

"Almost the entire medical profession in this country, including even most of that very large proportion who have not had the advantages of a thorough preliminary training, are urging its utility or necessity; the medical associations have in all places declared its importance, and especially is this true of the American Medical Association. The American medical journals have unanimously insisted upon radical changes in this respect; the professors and the alumni of medical colleges at their annual commencements, and in their social gatherings, have reiterated the same sentiment; but the work of reform in this direction is not yet accomplished. They need further help, and we have put our hands together to help them.

"Our association is not intended as a substitute for any other association of medical men; but we propose to supplement their labors. We fully believe that we can be useful in some small degree, and we shall not cease our efforts or disband our organization until the needed reforms are accomplished."

The Fellows of the Academy must be Alumni of respectable collegiate institutions, who have received therefrom:—

1. The degree of Bachelor of Arts, after a systematic course of study, preparatory and collegiate;
2. The degree of Master of Arts in accordance with the usage of these institutions;
3. The degree of Doctor of Medicine, after a regular course of study, not less than three years under the direction and instruction of preceptors and professors. They must have also had an experience of three years in the practice of medicine.

Candidates for fellowship must be recommended by at least one Fellow, and be approved by a majority of the Council, after which the consent, by ballot, of two-thirds of the Fellows present will secure their election.

The initiation fee is \$5.00, to be paid before initiation and registration.

Blank forms of application for fellowship can be obtained from the Secretary.

The annual meeting for 1879 will be held September 16, in New York.

RICHARD J. DUNGLISON, M.D., *Secretary*,
P. O. Box 2386, Philada.

The Electric Light.—Professor Cohn of Breslau has been lately making experiments with the electric light on the eyes of a number of persons for the purpose of testing its influence on visual perception and the sensation of color. He has found that letters, spots and colors are perceived at a much greater distance through the medium of electric light than by day or by gaslight. The sensation of yellow was increased sixty-fold, compared to daylight; of red, six-fold; and of green and blue about two-fold. Eyes that could only with difficulty perceive and distinguish colors by daylight or gaslight were much aided by the electric light, and the visual perception was also much strengthened. Professor Cohn concludes from this fact that electric light would prove exceedingly useful in places where it is desirable that signals should be seen at a great distance. The engine used was Gramme's electro-magnetic apparatus, which rotates six hundred times in a minute.

Poisoning by Carbolic Acid.—A case of acute poisoning with carbolic acid through an enema is recorded by Dr. Praetorius in the *Berliner Klinische Wochenschrift*, April 14th, 1879. The patient, a delicate lady aged 45, had been suffering for several weeks from an obstinate attack of diarrhoea, which could not be stopped by the usual agents, and threatened to undermine the patient's strength. The author prescribed an enema of a one per cent. solution of carbolic acid, of which a quarter of a *litre* was mixed with one-third of a *litre* of warm water. Hardly had one-third of this enema been injected, when the patient began to complain of ringing in the ears, giddiness, and weakness, and collapsed. The enema was of course immediately suspended, and the patient told to void her bowels. This was done; but she remained in a collapsed state till the bowels had been washed out with warm water, when she gradually recovered; but it was not till two hours later that the disagreeable symptoms disappeared. The diarrhoea, however, had been stopped by the carbolic acid.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of *THE GAZETTE*, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply the number, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give *THE GAZETTE* a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CLINICAL LECTURE ON SCURVY.

Delivered at the Pennsylvania Hospital, Philadelphia.

BY
J. M. DACOSTA, M.D.

Professor of the Theory and Practice of Medicine in Jefferson Medical College.

[Reprinted for *THE HOSPITAL GAZETTE*.]

This disease is not often met with in private practice, but we meet with it very often in the wards of hospitals. There have been a number of cases recently under my charge in this hospital and I have thought it worth while to bring the most marked of these cases before you to-day and to devote a short time to a discussion of its symptoms and treatment.

CASE I.—T. H., æt. 35, a strong, well built, hardy sailor, has been on a two months voyage on an English ship which sailed from Cardiff, Wales, to Carthage, Spain, and thence to this city. During this time he subsisted almost entirely on salt food. Two weeks prior to his admission (yesterday), he began to suffer pain in his bones, and particularly in the large joints, *i. e.*, ankle and knee. The left ankle, indeed, became so swollen in the course of this attack that he had not been able to work at all during the eight days prior to his entrance into the hospital. There was no appearance of fever during this time, and he always slept well at night. His bowels were constipated, however, and he complained of a moderate amount of debility.

What he came here for and what was the worst symptom to him, were the peculiar rheumatic pains, (I use this expression in his sense, and not in my own), which he felt, especially round his left ankle and knee. These, indeed, were the predominant features of the disease when he first came.

Upon examining him yesterday, I found that these pains were associated with numerous ecchymotic spots most plainly visible on the inner aspect of the left ankle. Joined with this ecchymosis. There was some swelling—the skin presenting a glazed appearance as if it had been painted with collodion, but the resident physician assured me that this was not so. There is some slight want of power in this foot (left) and some pain upon motion. There is also general pain in both the knees.

But let me turn to the other symptoms. The one which is the most significant is the appearance of the gums. They look spongy and scorbutic, particularly in the upper jaw. The tongue is clean. The breath was at first fetid, but is less so now. The man's bowels are constipated. The urine was examined, and found to be acid, and free from pus and albumen. The patient's temperature upon admission was normal, *i. e.*, $98\frac{1}{2}^{\circ}$, and it has remained so since.

Upon auscultating the chest, and more particularly the heart, I can plainly distinguish a systolic, soft murmur. This murmur is most marked over the body of the left ventricle. The area of the splenic dulness is enlarged so that it extends to the margin of the ribs. The hepatic dulness is normal. There is no cough and has been no hemorrhage from the nose or lungs, and no dropsy. This concludes the clinical record of the case. Before I expatiate upon the character and treatment of the disease I will show you this other case.

CASE II.—This case is less marked, and were it not that the man comes from the same ship, has eaten the same restricted diet, and has been exposed to the same circumstances, his true condition might very easily escape notice. He complains of the same pseudo-rheumatic pains (excuse the expression), and his debility is still more marked than in case number one. This is the history:

W. B., æt. 29, a sailor; has had the same shooting pains in his legs. His tongue is clean, as in *Case I*. His gums are spongy. He has had no fever. There is no albumen in his urine. No marked dyspepsia and no special depression of mind. His bowels are also constipated. There is in this case also the same soft, systolic murmur over the body of the left ventricle, with much greater rapidity of the action of the heart than existed in *Case I*. This case is not quite as pure a one of scurvy as *Case I*, as the man has a specific history. And we might well attribute the rheumatic pains to this specific condition were they not explainable otherwise.

Having then examined these cases with sufficient accuracy, let us group them together, see in how far they are alike, and close with a few explanatory remarks.

And first let me call your attention to the causative element of the disease. The men are both sailors, and have been limited for a long time to the same salt diet, and exposed to the same hardships. This salt diet fails to meet the requirements of the system. You all know that scurvy is produced most commonly by the withdrawal of the vegetable juices from the diet. It is, in other words, as we now understand it, oneness or sameness of diet, for even fresh animal food will produce it if no other diet be allowed. The peculiar elements supplied to the blood by vegetable foods are wanting. Salt provisions are, however, much more likely to bring on the disease than a long-continued fresh meat diet. In this respect the cases are alike.

This brings us to a consideration of the symptoms, and the question arises, are the symptoms presented by these two men, the symptoms of scurvy, are these typical cases, in fine, what are the peculiar symptoms of scurvy? What I have styled *pseudo-rheumatic* pains are a very common feature of the disease. These pains have quite frequently been mistaken for those of rheumatism in the lower extremities. A patient with these pains will very often consult you for rheumatism, when his other symptoms will show you very plainly that the case is not one of rheumatism at all. Another point—these pains, like rheumatism, are usually associated with some stiffness of the joint and with the production of pain upon motion. They are almost always limited to the lower extremities; at all events,

it is in the lower extremities that they are most marked.

These pains are present in both of these cases, and in both of them we find spongy gums, which are, without doubt, the most reliable diagnostic sign of scurvy. In both cases the tongue is clean and there is but slight, if any, gastric derangement. In both cases there is constipation, and in case number one some fetor of the breath. These symptoms, viz: clean tongue, constipation, and fetor of the breath are all common to scurvy.

In Case I there are some additional points of interest; one of these is the peculiar ecchymotic eruption on the inside of the left ankle. This is a symptom very peculiar to scorbutic extravasation. There is also in Case I some enlargement of the spleen, and this, although the man has never had malarial fever, so that it has a still greater significance as a symptom. So too, we find in both cases what is not generally recognized as an accompaniment of scurvy, namely, a soft, systolic, ventricular blood murmur, which is unassociated with any symptom of cardiac enlargement. In neither case have there been any febrile phenomena, and in neither case have we been able to discover any albumen in the urine. With this I think that I have exhausted the category of symptoms.

Do such cases ever occur in private practice, you will, with great propriety, inquire of me. To this question I will answer both yes and no. Marked cases of the disease are not likely to present themselves in private practice, but less marked instances you will most undoubtedly meet with. If you know what fully developed scurvy is, you will understand these less marked instances. Emotional persons, living in luxury, begin to bring themselves down in diet. They never have very much appetite, and they think that the less they eat the less they will suffer from dyspepsia. Such persons drop first one and then another article of food, and are in reality starved, although driving about in handsome carriages. Such instances may not be striking ones, and yet you will find in them spongy gums, lassitude, fetor of the breath, clean tongue, and a more or less strongly marked tendency to constipation. These people, too, have pseudo-rheumatic pains. They have tried electricity, perhaps, and tried limiting their diet, and made a tour of the various baths, and yet their pains are not improved. You may be surprised to hear me say so, but I assure you that these are real cases of scurvy, although they are only half developed. Certainly my diagnosis would not seem to be sustained by the circumstances of the patients, and yet I have cured very many such cases by this key, and by, therefore, putting them upon the proper treatment for scurvy.

I have even known of the existence of ecchymotic spots on the legs of such people just as is the case here, and this, too, in those living upon the best of the land, and with apparently everything to gratify their tastes.

What are we to do for these cases? How are we to treat scurvy? I am now speaking of the proper treatment of Case I, for in Case II, the scurvy is evidently complicated by specific disease. Of course, the first thing to be done is to vary the diet and particularly to let the patient eat whatever vegetables

may happen to be in season. Among vegetables I may mention particularly celery, spinach, and onions. Onions, though not imparting the most pleasant of odors to the breath, is a most excellent anti-scorbutic. Let the patient eat potatoes and a varied vegetable diet. Then the fruits are always of value, such as oranges, lemons, grapes, etc. Our object, of course, should always be to introduce the ingredients of vegetable food into the diet in their most inviting form.

When the fresh vegetables and fruits cannot be easily procured, lemonade, freely partaken of, is a very fair substitute. With it the patient should eat a moderate amount of fresh meat and fish.

As regards medicinal agents, irrespective of diet, the mineral acids do most good. These remedies are of especial value in such cases as these now before you, where we have noted the presence of a distinct murmur, not of cardiac, but of anæmic origin. To the mineral acids, we can of course add iron.

Case I has been taking the tincture of the chloride of iron with muriatic acid—twenty drops of the former with ten drops of the latter (strong muriatic acid) well diluted, thrice daily. With this treatment I look for a decided abatement of the symptoms.

In Case II, I will carry out this same treatment to some extent, for as there is a syphilitic eruption present he will require specific treatment in addition. With this in mind, I have given orders that he should have one twenty-fourth of a grain of the bichloride of mercury thrice a day. The rules of diet must be the same for this man as for Case I.

Time will not allow of my engaging in the speculation as to whether scurvy can be prevented by the proper use of lime juice, a supply of which all captains should carry with them when going upon a long voyage. All I can do is to merely hint at the subject, which if properly and fully considered would carry me far beyond my allotted lecture hour.

ORIGINAL ARTICLES.

MAMMARY TUMORS—THEIR DIFFERENTIAL DIAGNOSIS.

BY
D. S. ADAMS, M.D., OF MANCHESTER, N. H.
(Read before the N. H. Medical Society, June 17, 1879.)

Erichsen says: "The study of the various tumors of the breast, more especially in a diagnostic point of view, is of the first importance to the practical surgeon; for though it might be supposed that it would be easy, if not to recognize the minutest shades of pathological difference between morbid growths so superficially situated as those of the mammary gland, at all events to diagnose the malignant from the non-malignant affections of this organ; yet in practice nothing is more difficult in many cases; and it not only requires great experience, but also an intimate acquaintance with the special course and symptoms of each particular disease, to come to a correct conclusion as to its nature." "Even with all the light which experience and a careful examination of the character of the tumors may throw upon the nature of the disease, it will be impossible

for the surgeon to avoid occasional errors in diagnosis."

I think every physician who has had any considerable experience with these cases, fully realizes the truthfulness and force of these words, for nothing is more common than to see physicians pronounce almost every form of mammary tumor malignant and advise an operation; and it is altogether too common for a physician to examine a breast that has been removed, only to find it containing a simple adenoid tumor. I do not pretend to say that these mistakes can always be avoided, but I do claim that there is no excuse for any physician who removes a breast before he has exhausted every means at his command, to establish the true character of the tumor with which he is dealing. And in establishing these characters let us not be deceived by any one or two symptoms, for on closer analysis we will find that there is no one symptom characteristic of any form of tumor; notwithstanding there have been certain symptoms laid down from time immemorial that have been pretty generally relied upon as characteristic, when taken by themselves they are only too well calculated to mislead. Again the nomenclature of mammary tumors has been terribly mixed for years, and no man knows what another man means when he says adenoma, or sarcoma, unless he defines it anatomically, but we are gradually working out of this dilemma, and if each one writing upon the subject will take pains to define his terms, it will be but a short time before our classification will be perfect and each term will have a definite pathological meaning. Without reviewing the many names applied by different authors to the different tumors, I will proceed to give, not a full classification, but the tumors with which I propose to deal, together with my understanding of the anatomy of each, after which I will arrange their symptoms in a tabular form for ready reference; but in order to be properly understood it will be necessary to briefly call attention to the various tissues of which the mammary gland is composed, and the embryonic layers from which they sprung.

The mammary gland is surrounded by a thick layer of adipose tissue, held in position by reticulated connective tissue, which penetrates into the interior, subdividing it into lobes; but in the ultimate gland structure and in the nipple and areola, there is no fatty substance. In this tissue deep seated, at the inner and outer border are lymphatic glands, the inner opening into the anterior mediastinal glands, the outer communicating with the axillary glands. These structures are derived from the middle germinal layer. The ultimate gland structure consists of small vesicles, which are united to form lobules, which are grouped to form lobes, each of which has a duct leading to the nipple. These glands are formed by the vesicular endings of branched ducts, and they, together with the ducts, are formed of connective tissue lined with a single layer of epithelium, which is greatly increased during lactation, thrown off into the gland, and undergoing fatty degeneration forms a part of the milk. They are derived from the external germinal layer. Surrounding the terminal ducts is a spindle celled tissue, which separates the limiting membrane from the stroma. This, I believe, is a mongrel tissue formed between

the two germinal layers, and from this I think the spindle celled sarcomata originate. The nipple is composed of the ducts, united by connective tissue, with bloodvessels, lymphatics, and nerves. Upon the surface and beneath the cuticle is a layer of pigment cells. The connective tissue contains a large quantity of contractile fiber, which, when excited to contract, produces a rigidity of the whole organ. Within the areola are situated hair follicles and sebaceous glands; hence sebaceous tumors are occasionally developed in this region. The 2d, 3d, 4th, and 5th intercostal branches of the internal mammary artery usually convey blood to the internal segment of the breast; a branch from the axillary usually supplies the upper and outer portion, and the inferior and lateral regions receive a few branches from the intercostal, which pass with the veins through the middle intercostal foramina. The lobules have a distinct system of capillaries of their own, forming a network around the alveoli, which are comparatively inactive during the resting period of the breast. The veins usually accompany the arteries and terminate in the internal mammary and axillary trunks. A peculiar arrangement of the areolar veins has received the name *circulus venosus areolæ*. The nerves supplying the breast are as follows; "The breast and skin covering it are supplied by filaments from the anterior branches of the 4th and 5th cervical nerves. Filaments from the posterior branches of the same nerves join with others from the superior dorsal nerves. Filaments from the middle and anterior intercostal branches of the anterior division of the 2d, 3d, 4th, and 5th nerves of the dorsal plexus supply the breast and skin over it chiefly. A minute examination demonstrates the association between the 2d intercostal and filaments supplying the skin of the inside of the arm and axilla. Also the same parts and the skin about the shoulders from the 3d, and the skin about the scapula from the 4th and 5th. (Holmes).

These nerve communications explain the extensive pain in hyperæsthesia of the breast. I shall be obliged to deal with three conditions of the breast that are not, strictly speaking, tumors, on account of their symptoms so closely resembling those of tumors: 1st. Galactocoele. 2d. Congestion with milk. 3d. Chronic encysted abscess tumors. 4th. Adenoma. 5th. Adenoid cyst. 6th. Soft carcinoma. 7th. Hard carcinoma. 8th. Sarcoma. 9th. Cystosarcoma, and the rarer forms. 10th. Fibroma. 11th. Lipoma. 12th. Neuroma. 13th. Hydatid cyst. 14th. Enchondroma. and 15th. Osteoma. By *Galactocoele*, I understand an obstruction of the duct, whereby there is an accumulation of milk and dilatation or rupture of the gland or duct, which forms an encysted milky tumor, in one of the lobes of the breast.

Congestion with milk, is caused by the absence of the more fluid portion of the milk, on account of which the solid portion accumulates in the ducts and glands, producing a lobulated tumor of stony hardness.

Chronic Encysted Abscess, is the result of as low chronic inflammation which results in the formation of pus, which is surrounded by a thick dense fibrous wall. This frequently reaches a certain size, there remains stationary for months.

Adenoma, is always in connection with secreting glands, and is the result of increased growth of the epithelium lining them, the layer of which is crowded inward by a new layer forming under it, and failing to undergo the fatty metamorphosis, fills up and dilates the gland, by which it may form new gland structure in some cases. The epithelial growth is always confined to the inner portion of the gland and does not infect the surrounding tissue.

Adenoid Cyst, is the result of the same process as above, occurring in one terminal gland or as the result of the breaking down of the intervening tissue between several glands, the tissue softening to form a mucous mass.

Soft Carcinoma, is the result of an increased growth of the epithelium, but instead of being thrown off into the gland, it infects the leucocytes as they approach the epithelium through the lymphatic lacunæ, causing them to develop into epithelium, thus blocking up the immigration of the leucocytes and filling the surrounding tissue with epithelial growth.

Hard Carcinoma is the result of the same process, with an increased growth of the fibrous tissue. The cells of both these, therefore, lie in lymphatic lacunæ, an abundance of cells in the soft, a limited number in the hard.

Sarcoma.—The spindle celled, in my opinion, originates in connection with the spindle celled tissue which separates the limiting membrane of the glands from the stroma. The round celled has its origin in connection with the lymphatic spaces in the connective tissue, by an increased growth of the endothelium lining them, together with an increased growth of the connective tissue.

Cystosarcoma is the same process, only the endothelial growth takes place in one lymphatic space, dilating it, or in several breaking down the intervening tissue between them; the endothelium softening in the former into a serous fluid, in the latter into a cloudy serous fluid, and if a gland be implicated in the latter into a muco-serous fluid, in which case the tumor may possess both round and spindle celled tissue. The first of these is the simple sero-cyst of some authors.

The *Fibroma* is a simple increase of the connective tissue, without the infiltrating cells, confined to a limited portion of the breast, and is exceedingly rare.

The *Lipoma* is an encysted fatty tumor, arising in connection with the adipose tissue of the breast.

The *Neuroma* arises in connection with the nerve tissue, producing a bulbous enlargement of the nerve, and is composed of newly formed nerve fibre and ganglionic cells.

The *Enchondroma* and *Osteoma* probably take their origin in connection with the connective tissue, or as a degeneration of some of the other tumors. But little is known in reference to their origin in this situation on account of their rarity.

The *Hydatid Cyst* explains itself, and presents the ordinary characters of a deep seated cyst. Can one form of a tumor begin in the breast and after a time change, or take on another form? I think this sometimes occurs; for instance an adenoma may be confined for months to the inner portion of the gland, when from some renewed action it blocks

up the immigrating leucocytes, and infects the surrounding tissue and results in a *soft carcinoma*. Also, the sarcoma may form independent of the gland, and later involve the gland so as to produce a mixed tumor; or most any of the hard tumors may undergo mucous or serous degeneration, forming a cyst, or cartilaginous or osseous, forming an *enchondroma* or *osteoma*. These tumors are auto-inoculable just in proportion as their epithelium is taken up by the lymphatics; consequently the soft carcinoma is the most dangerous, the hard next, and the spindle-celled sarcoma next, provided they all remain in the system the same length of time. Broken down epithelium is more poisonous when taken into the blood than any other tissue in the system. I do not consider the round celled sarcoma nor any of the other tumors above enumerated as auto-inoculable, unless the glands and epithelial tissue become involved in them.

The diagnosis of these various tumors is not an easy matter, for it is very evident that if fifteen tumors originate within so small a compass as the breast, inflaming the same tissues, and pressing upon the same nerves, that we must have a great many symptoms in common. The adipose tissue is a great hindrance to our physical examination, for the most important tumors are usually deep seated, and the thick layer of fat so masks them in some places that it is utterly impossible to tell whether they are smooth and hard, nodulated, elastic, single or multiple. Then the more characteristic symptoms do not appear till late in the disease, and the surgeon that waits for infection of the surrounding glands, for the retracted nipple with the implication of the skin over the breast, or for the adhesion of the mass to the subjacent tissues is only allowing his patient to slip beyond his reach into the stage of general infection, for which there is no help. But there are some points that aid us very much in our diagnosis, especially in distinguishing between carcinomata and other tumors. First among these probably is age, for about 95 per cent. of all carcinomata of the breast begin after the age of thirty; so if the patient be under that age the chances are largely against carcinoma. The majority of the cases of sarcoma, and nearly all the fibromata begin after the age of thirty, while about sixty-two per cent. of the cases of adenoma begin under the age of thirty; but in connection with this we must bear in mind that years and days do not truly represent the age of the patient, as it should be considered here, for one woman may be older at twenty-five than another at thirty-five, therefore more liable to have carcinoma, consequently the question should always be asked in our own minds, "is this woman prematurely old, or postmaturely young?" Next, was this bunch developed during the passive state of the breast, or during its functional activity? If developed during its functional activity it is probably either galactocoele, congestion with milk, or chronic abscess, although the latter may not make its appearance for months after a miscarriage or delivery. It is only in cases of abortion where the woman tries to conceal the fact that we are very apt to be misled on these diseases; but general activity of the local circulation, the fulness of the breast, the enlargement of its veins and darkening of the areola in connection with

Galactoele.	Concretion with Milk.	Chronic Encysted Abscess.	Adenoma.	Soft Carcinoma.	Hard Carcinoma.	Sarcoma.	Primary Cyst.
1. During the child bearing period and the result of pregnancy.	1. During the child bearing period and the result of pregnancy.	1. During the child bearing period usually and generally the result of pregnancy.	1. Majority of cases under the age of thirty.	1. Very rare under the age of thirty.	1. Very rare under the age of thirty.	1. Majority in patients over thirty.	1. At any age above puberty. Majority under thirty.
2. No pain.	2. Some dull pain some times, but not common.	2. No pain.	2. If painful, pain dull and most severe at catamenial period.	2. May or may not be painful, but usually painful, till skin is implicated, then pain severe and cutting, running to shoulder and down the arm.	2. Usually not painful, till skin is implicated, then pain severe, cutting or stabbing, running to shoulder and down the arm.	2. May or may not be painful.	2. Not painful usually.
3. System not disturbed.	3. System not considerably disturbed.	3. System not disturbed.	3. System not much disturbed.	3. System considerably disturbed.	3. System not much disturbed.	3. System usually some disturbed.	3. System not disturbed.
4. Breast considerably enlarged.	4. Breast very much enlarged.	4. Breast not much enlarged.	4. Breast slightly enlarged.	4. Breast some enlarged and enlarges rapidly.	4. Breast normal at first.	4. Breast slightly enlarged.	4. Breast appears normal,
5. Local circulation active in both breasts.	5. Local circulation active in both breasts.	5. Local circulation some increased in both breasts.	5. Local circulation some increased in the breast affected.	5. Local circulation some increased, in breast affected.	5. Local circulation apparently normal.	5. Local circulation on slightly increased in breast affected.	5. Local circulation normal.
6. Tumor quite a size, but if it has been in the breast long it is not as large as it was, on account of the more fluid portion being absorbed, but harder.	6. Tumor large and lobulated.	6. Tumor small and irregular in shape.	6. Tumors small and nodulated.	6. Tumor quite size, irregular, and not well defined.	6. Tumor small & smooth or nodulated.	6. Tumor quite size and irregular.	6. Tumor small, and may be nodulated.
7. May give an elastic feel or fluctuation, or be hard.	7. Stony hard.	7. May give an elastic feel, otherwise hard.	7. Moderately hard.	7. Usually soft with a doughy feel.	7. Tumor hard.	7. Tumor a little soft.	7. May give an elastic feel, otherwise hard, and may be finely nodulated.
8. Single.	8. Single.	8. Single.	8. May be single or double.	8. Single, but lobulated feel may give the feel of a multiple tumor, but you cannot roll one tumor on the other.	8. Single.	8. Usually single.	8. Frequently multiple, and when so can readily roll one tumor on the other.
9. Nipple may or may not be connected with the tumor. If a simple distillation has taken place it is connected. If a rupture it may not be.	9. Nipple always connected with tumor.	9. Nipple may or may not be connected with the tumor; usually is.	9. Nipple always connected with tumors.	9. Nipple always connected with tumor.	9. Nipple always connected with tumor.	9. Nipple may or may not be connected with tumor.	9. Nipple may or may not be connected with tumor.
10. Freely movable.	10. Not freely movable.	10. Not freely movable.	10. Freely movable.	10. Freely movable at first, but soon becomes solid.	10. Freely movable at first.	10. Not freely movable.	10. But little movable when deep seated.
11. Skin distended over it.	11. Skin distended over it.	11. More or less oedema of the areola.	11. Skin normal, unless tumor has reached considerable size, more growth slow under the age of thirty, after that rapid.	11. Skin normal at first, but soon becomes solid, implicated early.	11. Skin normal till late in disease.	11. Skin normal.	11. Skin normal.
12. Growth rapid. Tumor fills every time the child nurses, then gradually subsides.	12. Growth rapid to a certain size then stationary.	12. Growth slow.	12. Growth slow under the age of thirty, after that rapid.	12. Growth rapid.	12. Growth slow.	12. Growth usually rapid.	12. Growth slow and may remain small for years, then grow very rapidly. May have a vegetation spring from its wall forming the compound cyst.
13. Nipple never retracted.	13. Nipple usually retracted or embedded in the breast.	13. Nipple usually flattened or retracted.	13. Nipple projects.	13. Nipple projects at first, but soon becomes retracted.	13. Nipple normal at first, may or may not be retracted.	13. Nipple may or may not be retracted.	13. Nipple may or may not be retracted, is not usually.
14. Surrounding glands never implicated.	14. Surrounding glands may be some swollen.	14. Surrounding glands may be some swollen.	14. Surrounding glands never implicated.	14. Surrounding glands soon implicated as the growth is rapid.	14. Surrounding glands not implicated till late in disease.	14. Surrounding glands never implicated.	14. Surrounding glands never implicated.
15. Superficial veins enlarged in both breasts.	15. Superficial veins enlarged in both breasts.	15. Superficial veins may be enlarged.	15. Superficial veins usually enlarged.	15. Superficial veins enlarged early.	15. Superficial veins not enlarged till late in disease.	15. Superficial veins may be enlarged.	15. Superficial veins may be enlarged.
16. Puncture, cheesy mass or cream.	16. Puncture, cheesy mass or cream.	16. Puncture, pus.	16. Puncture, solid.	16. Puncture, tumor soft, but no discharge.	16. Puncture, solid.	16. Puncture, solid.	16. Puncture, fluid.
17. Microscope, milk or fat globules, with more or less epithelial cells in degenerating fatty degeneration.	17. Microscope, the same as 17.	17. Microscope, pus or corpuscles.	17. Microscope, epithelial cells if taken from the interior of the adenoma, otherwise may get connective tissue.	17. Epithelial cells, arranged in alveoli with no connective tissue, spindle shaped cells separated by well marked connective tissue nodules.	17. Same as soft, except more connective tissue and less cells. Arrangement of cells the same.	17. Spindle shaped cells, round, if it be characteristic, the cells are on blue epithelial cells.	17. If primary the walls are simple connective or gland tissue. If secondary same character as tumor from which it was formed.

more or less activity of the other breast will usually enable us to decide.

If developed during the passive state of the breast, did it occur as the result of active inflammation, or has the breast apparently been free from inflammation? If the result of active inflammation the chances are that it is an abscess or benign tumor, for the more active forms of inflammation rarely result in the malignant tumor. Again is it a solid tumor or a cyst? In some cases we are able to decide this by the elastic feel of the tumor, but more commonly when the tumor is deep seated we are unable to detect any elastic feel; but fortunately puncture never fails to decide, and when punctured with the harpoon, if it prove solid, you can remove a piece for the microscope, so I think it always ought to be used where there is any doubt.

In the physical examination of the breast we are often aided very much by placing the patient in a recumbent position, with the breast free to tip one way or the other or settle back onto the chest, for frequently it will divide as it were over the tumor, leaving that more prominent and nearer the surface than while standing. Is the tumor single or multiple? When multiple we can sometimes roll one tumor on the other. If multiple the worst it can be is sarcomata, for carcinoma is never double. Is the nipple attached to the tumor or free? By pressing the breast forward over the tumor, and with the fingers of one hand pressing the tumor back against the chest, while we pull upon the nipple with the other hand, we are frequently able to decide by the fixed condition of the nipple. If it be attached to the tumor, the tumor is in connection with the glands or ducts; if free it cannot be in connection with them on account of their close anatomical connection with the nipple. Is there any discharge from the nipple, or can any be pressed out? If there can be we know it contains fluid within the glands or ducts. Is it painful or free from pain? Here we never should ask a leading question, but let the patient describe the pain in her own language, without any of our aid. If the pain be lancinating, darting or stabbing, extending up to the shoulder and down the arm, it points strongly to hard carcinoma; but if it be free from pain it is no guarantee against carcinoma, for carcinoma may exist without pain. It is always a good plan to learn if the patient has been reading about cancer, for frequently after reading the symptoms she will imagine the disease and give the doctor the full list of symptoms. As proof of this it is only necessary for us to recall the many diseases through which we passed while reading medicine; but the following table will aid us in forming a correct diagnosis:

In the above table I have classed all the cysts as one, as there is nothing to distinguish one from another except the microscopical characters of the walls, and its position in reference to the gland; thus, if entirely free from the gland it must be a sarcomatous cyst. Also, I have omitted fibroma, lipoma, neuroma, enchondroma and osteoma, as they are all exceedingly rare, and the last two are frequently the result of change in some other tumor.

The fibroma in its earlier stages has all the external characteristics of the hard carcinoma and can

only be distinguished by the use of the microscope, and even here it is very difficult in some cases.

The lipoma being entirely free from the gland and presenting the microscopical characteristics of adipose tissue is readily distinguished.

The neuroma is usually very small and may be very painful while the surgeon is unable to find any tumors whatever. The tenderness of the nerve affected when pressed upon, will be of some diagnostic value. From the table we learn that retraction of the nipple is common to all tumors which implicate the glands or ducts; and it is undoubtedly the result of inflammation and contraction of the connective tissue surrounding the ducts. This does not always take place, consequently retraction is more or less accidental.

Hardness is common to all, except soft carcinoma and sarcoma, and it may occur in connection with sarcoma. All the tumors may be irregular in shape giving a nodulated feel. Later in the disease, if it be carcinoma, the severer symptoms become intensified, so it is not difficult to determine, but our patient is beyond help, so our knowledge is of no benefit. But fortunately the harpoon and microscope enable us to determine the character of these tumors in their earlier stages and always ought to be used, and the sooner they are used the better; but my observation would tell me that they are not in general use. The use of the harpoon cannot possibly do any harm in connection with these tumors, for, if it prove a benign tumor, or cyst, the inflammation following its use will frequently cure it. When the surgeon has no harpoon, a narrow bladed knife and small pair of forceps will answer the same purpose and if local anæsthesia be used, the operation is painless. Finally we should exhaust every means at our command to determine positively the character of these tumors, and when we have determined the character act promptly on the decision.

HOSPITAL RECORDS.

DR. FRANK H. HAMILTON'S SURGICAL SERVICE, BELLEVUE HOSPITAL.

RESECTION OF HEAD OF HUMERUS, IN A CASE OF
OSTITIS, ORIGINATING PROBABLY FROM PUE-
PERAL THROMBUS—OPERATION SUCCESSFUL—
RESTORATION OF FUNCTION.

Mrs. J. McGuire, æt. 44, mother of several children, was confined March 27th, 1879, the labor being easy and natural. Four days later she was seized with severe pain in the right shoulder-joint. A surgeon subsequently aspirated the joint, and a large amount of thin fluid was withdrawn.

April 9th, thirteen days after confinement, admitted to Bellevue Hospital. She was thin, pale and had suffered from insufficient nourishment. Temperature 105, pulse rapid. Her shoulder and arm were swollen, painful and very tender. The wound made by the aspirator had continued to discharge pus from the date of the operation, and the capsule seemed nearly empty.

Nutritious food and tonics were ordered, and the arm was dressed with warm water fomentations; under which treatment all of the symptoms improved.

May 7th, a small abscess opened near the opposite axilla, which had formed in the course of the lymphatics.

May 31, patient having suffered great pain in the diseased shoulder, and her health, which had improved for a time after admission, during the last few days, becoming again seriously disturbed, a consultation was held, and excision was recommended.

Operation, June 9th, under ether. A long incision was made by Dr. Hamilton, from the acromion process, about in the line of the long head of the biceps, several inches down the arm, exposing the front and inner portion of the joint. The humerus was then rotated outwards by the assistant, while the attachment of the subscapularis to the lesser tuberosity was cut. Then rotating the humerus inwards, the attachments of the supra and infraspinatus and teres minor were divided. A little farther dissection of the capsule and ligaments of the joint permitted the head of the humerus to be brought out, and its section to be completed with the saw, through the middle of the tuberosities. Two or three small vessels required ligatures. A solution of 20 per cent. carbolic acid was employed to restrain parenchymatous hemorrhage, and, as Dr. Hamilton said, to give tone to the exposed surfaces, and encourage granulation. This application whitened the raw surface, probably by coagulation of lymph and serum, and diminished very much the oozing of blood. A counter opening was now made posteriorly for a drainage tube, and the wound partly closed with adhesive strips.

Dr. Hamilton remarked that while in military surgery—that is to say—when the head of the humerus was shattered by a ball, and a primary or immediate operation had to be made, the oval, flap operation was generally required in order to remove all the fragments of bone, in a case like this, where the head of the bone was entire, the long incision was ample.

On examination of the parts, after the operation was completed, the glenoid cavity was found covered with granulations, but not eroded; the head of the humerus was at one point of its surface eburnated, and at others slightly eroded, granulation tissue occupying the place of the bone. The head of the humerus was vascular, and suppuration had commenced in its interior, rendering it quite apparent that the osteitis was the source of the great pain she had suffered, and that nothing short of resection would have arrested the disease. The pain never returned after the operation was made. The drainage tube was kept in only a few days, but the wound was gently syringed with tepid water, and warm water dressings were employed most of the time. The arm was allowed to hang the first two weeks, supported by a sling *under the wrist*.

Dr. Hamilton never elevates the head of the humerus by a sling *under the elbow* until the inflammation has somewhat abated, as it is apt to tilt the fragment and cause pain. The patient sat up on the third day, and in a few days more walked about, with the sling under the elbow. July 1, the wound is almost entirely closed, and she expresses a wish to leave the hospital. She is already able to move the humerus slightly in every direction, namely, forward, backward, outward, and she can now rotate it slightly. She is promised a useful arm.

The intense pain and great constitutional disturbance which characterized the progress of this case, were the symptoms upon which especially was based the conclusion that the head of the humerus was suffering from osteitis. A synovitis, especially when, as in this case, the capsule was kept empty, does not often cause so much pain and so much general disturbance. Osteitis of the head of the humerus has oftener proved fatal than otherwise, and justified an early resection.

RESECTION OF HEAD, NECK, AND TROCHANTER OF HUMERUS, FOR MORRIS' CASE IN PROGRESS.

John Carara, æt. 11, admitted to Bellevue Hospital, Sept. 12, 1878, with well marked hip disease. It was found impossible to trace it to any injury. His mother is said to be laboring under hip disease now. Nine months before admission he began to have pain, first in his left knee, then in the thigh, and finally in the hip. Two months before admission he began to wear Sayre's portable apparatus, which, while it enabled him to walk with more ease, did not arrest the progress of the disease, or prevent the thigh from becoming contracted and flexed upon the body.

When admitted, (Dr. E. Mason's service) there was a large abscess in the upper and outer part of the thigh, which was aspirated. He was placed in bed and extension applied in the direction in which the limb was found, until gradually the thigh was brought down to the line of his body. Aspiration was practiced several times and, finally, the abscess was opened freely by Dr. Hamilton.

During the period of his confinement in the hospital, and up to the date of the operation, more than nine months, he was successively under the charge of Drs. Mason, Mott and Hamilton, and only a portion of the time was he confined to his bed with extension. He often expressed a desire to have the extension applied, as it enabled him to sleep better.

Operation, June 25th, 1879, under ether, in the Bellevue Hospital Amphitheatre. A curved incision was made in the region of the trochanter major, with its convexity backwards—subsequently it became necessary to enlarge this—the trochanter and neck exposed, and the head and neck of the femur removed in fragments. The trochanter was then sawn off with a straight, narrow saw; but the shaft being found very soft, Dr. Hamilton made another section a little lower down *with a bistoury*.

The acetabulum was found perforated at one point. Sharp osteophytes arose from nearly its whole circumference, which were removed with a bone-cutter. The head, neck and shaft, so far as removed, were suffering under chronic osteomyelitis, the laminated portions were not actually destroyed, being as thin as an egg shell and so soft as to cut like cartilage. The interior was a dark brown, unorganized mass, containing more or less pus.

No ligatures were employed, but a very free capillary bleeding was restrained with a twenty per cent solution of carbolic acid. Balsam of Peru was poured freely into the wound, the wound filled with oakum and left gaping.

Mr. Reynders had made for the patient Dr. Sayre's, modification of Bonnet's wire bed or cuirass, and

the patient was laid upon it, but as it did not fit well, the patient was removed from it a day or two later, laid upon a bed, and moderate extension made upon the limb with a weight and pulley. This served the purpose perfectly.

CARIES AND POSSIBLY NECROSIS OF THE TROCHAN- TER MAJOR.

James Bell, æt. 24, admitted May 15, 1879. He states that at the age of five years his spine began to curve. (Rachites). It is now very much curved, but he has enjoyed good health until recently. Nine years ago he felt pain over the region of the right trochanter major. Two years ago he was thrown from a sleigh striking the trochanter, and since then he has had constant pain. Six weeks before admission openings occurred spontaneously some distance below the trochanter.

On the 4th of June Dr. Hamilton laid open the sinus, which was found to originate from the trochanter, which was exposed and carious. The purpose being to establish a more direct communication with diseased structures, and then to encourage a spontaneous exfoliation and cure.

The exploration confirmed what had been previously pretty satisfactorily ascertained—namely, that the joint was not diseased.

The case is still under observation.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

JNO. A. WYETH, M. D.

C. V. LUTZAN—A CONTRIBUTION TO THE CAUSE OF MULTIPLE LIPOMA.

The writer describes and gives the picture of a man of 63 years, who always enjoyed good health, with the exception to follow, and who has healthy children. In his fourth year, he says, small wart-like nodules began to appear on his body, but only slightly increased up to his thirtieth year. From that time the tumors grew in size and number so alarmingly that now his whole body is covered by the same, their size varies from that of a flax seed to that of a hen's egg; the writer counted 2,436 tumors. The microscopic examination of a few excised tumors shows fatty tissue which caused him to consider them as lipomata. After the writer searched the literature on this subject, and collected twenty cases, he came to the following conclusions, which are given verbatim below.

1. Multiple lipoma is of rare occurrence.
2. It is not confined to old age only.
3. Both sexes are alike prone to be affected.
4. The seat is usually the subcutaneous tissue of the body and extremities. More rarely these tumors are found on the head, very seldom in the face proper; never in the palm of the hands, or the soles of the feet.

5. The number of lipomata is unlimited.

6. The size varies from a flaxseed to that of a child's head.

7. The shape is roundish with a broad basis, seldom polypus-like, the surface smooth; very seldom do we find small tumors germinating from larger ones.

8. The structure of the contained cells varies but very little from those of normal fat tissue.

9. There is rarely a lipomatose diathesis.

10. Metamorphoses are very rare with multiple lipomata.

11. Multiple lipomata are not absolutely benign.

—*Centralblatt für Chir.*, March 22, 1879, p. 205.

HEYNOLD.—A CASE OF LUXATION OF THE 6TH CERVICAL VERTEBRA FORWARD, WITH COMPRES- SION OF THE SPINAL CORD.

The patient was a miner on whose head a large piece of coal had fallen from a height of about fourteen feet. He had become unconscious, but soon after the accident became sensible again. The extremities were completely paralyzed, the respiration only abdominal, the anæsthesia reaches upward to the second rib, he has severe pains in the back of the neck; no reflex movements upon irritation. The temperature had declined from 34.35° to 32.2° (R.), but rose shortly before death gradually to 40° , which ensued about twenty-four hours after the accident.

In a case reported by Brodie the temperature had risen to 44° R.—*Ibid*, p. 206.

MYOSARCOMA OF THE KIDNEY.—DR. MARCHAND.

The writer describes, under the above heading, a tumor which he found in a child of about 17 months. The tumor originated in the right kidney, measured in its greatest diameter 22 ctm., was 14 ctm., in thickness, weight was 2770 grms. The whole of the abdominal cavity, which was expanded to its utmost, was filled up by the tumor. The walls were smooth, upon incision yellowish or reddish white, and in a great many places traversed by blood vessels. On the posterior wall of the tumor was found a small layer of kidney substance. The result of the microscopical examination showed that the greatest mass of the tumor consisted of transversely striated muscular fibres in different stages of development. The amount of connective tissue varied considerably. The part of the tumor which appeared in substance like sarcoma consisted of small cells closely packed together with rounded nuclei and a fine granular protoplasm. The other organs were in the main normal, excepting in the liver, where were found nodules which were proven to be round celled sarcoma. Muscular elements were absent in these. Of this interesting form of tumor, three cases have so far been described, viz.; by Eberth, Cohnheim and Landsberger. In each case the patient was under eighteen months of age; the tumor was always of extraordinary size and its growth very rapid. Eberth had previously believed in an aberration of muscular elements and in their future morbid growth on account of the richness of the Wolffian body in cells containing nuclei for the formation of muscular and connective tissue.—*Deutsche Med. Wochen.* March 8, 1879, p. 118.

THE HOSPITAL GAZETTE,

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EDITORIAL.

DOCTORS SEEKING NOTORIETY THROUGH MURDER HYPOTHESES.

A desire for notoriety seems to possess humanity at times with such a force that the bounds of prudence form but a poor guard for man's acts. Ordinary caution and feelings of respect are forgotten; and man, to secure notoriety, and that only, grasps at the opportunity offered and pays no heed to the mire with which he covers himself in his rash venture. A species of intoxication seizes him, and hurls him along so suddenly over old landmarks and through sloughs, that not until the glittering bauble that tempted him is in his hands, and is bereft of its attractiveness by its nearness, does he comprehend that he has sacrificed character and position. The thief ventures life in the pursuit of his ill-gotten gain, and the forger weighs his freedom against others' wealth, the same grasping design controlling their acts. Wealth they secure, they may escape the penalty. He who seeks notoriety, surely loses his manhood; an insufficient reward for so great cost.

Among the professions, prosperity in which is dependent naturally upon an enviable standing, are to be witnessed the saddest examples of dearly purchased notoriety. A career of honesty and earnestness in strict accordance with the demands of his profession, may have been followed to this moment in the hope of deserving success, but the glitter of a chance to become widely and grandly known, blinds his eyes, and a dash is made for success at one bold stroke,—the learned man forgets his learning, and risks all to chance. He becomes notorious, as a fool.

The special place for the execution of medical aspirants after notoriety is the witness-box in the courtroom. Summoned as a witness, to testify as an expert, to instruct judge and jury in matters that pertain to his calling, to be published in the papers as the doctor whose opinion settled the disputed points, the physician's pomposity begins to take on additions in heavy slices, and unless he is well provided with a mental safety-valve, an explosion peculiarly disastrous is likely to occur. He magnifies his importance, thinks the occasion calls for a stunning effort—some original idea—and he gives it, and somebody is generally stunned. The idea part of his testimony stuns the court and the public squelches him professionally before the lawyers leave it. It is well to remember that a good witness needs usually but eyes, ears and a tongue—very seldom a nose or hands. Doctors want to think too much to become successful on the witness-stand.

We are tempted to speak these consoling words now that they may soothe the lacerated feelings of the "suspended animation" physicians who were called to testify in the Hull murder case in this city last week. The particulars of the murder, the detailed confession by the murderer of his smothering and pinioning his victim, his attempts by application of cologne and cold water to revive her, his lighting a candle to examine her condition, and his hurried departure, evidenced by his taking only a few articles of the many within reach, when he was conscious that he had killed her, have been widely spread throughout the land, making the case, one, the record of the trial of which will be generally sought. The medical gentlemen who appeared as "suspended animation" experts improved the opportunity and threw aside the confession of murder, and the confirmatory evidence of the murderer's knowledge of his accomplishment of his purpose as furnished by the haste; and in answer to a hypothetical question embracing all the facts, astonished everybody by suggesting other causes of death. Apoplexy, the autopsy, &c., ad nauseam. These doctors have received their deserved reward, they are and ever will be notorious.

A very small boy would say that if a rail and a grain of sand were seen upon a railroad track just before a train was thrown therefrom, that the rail was the cause of the accident. If an hypothetical legal blunderbuss was fired at him in regard to the probability or possibility of the grain of sand having been at all instrumental in producing the disaster, he would not make himself appear ridiculous in his answer. A plain, prompt, "No," would be his only reply.

Thinking witnesses, great in their own conceit,

unduly impressed by their being summoned, anxious to scintillate their glittering original ideas, or open to convictions of sordid character, might be able to hesitate about a grain of sand, but a man with good eyes and ears desirous of doing right would laugh to scorn question and questioner.

Physicians, when upon the witness stand are but men, and he who best preserves manhood by ignoring absurd fancies and repelling persuasive efforts of the lawyer, makes character for himself, and adds to the honor of the profession.

The sudden collapse of the "suspended animation" hypothecates calls for some public demonstration. We mourn for them.

ABOUT BOOKS.

Pott's Disease, its Pathology and Mechanical Treatment, with Remarks on Rotary Lateral Curvature, by Newton M. Shaffer, M.D., Surgeon in Charge of the New York Orthopædic Dispensary; Orthopædic Surgeon to St. Luke's Hospital—Published by G. P. Putnam's Sons, New York, 1879.

Our own country, as well as Great Britain, has been prolific in essays and treatises upon orthopædic surgery in general, and spinal diseases in particular. A large proportion of which in both countries have served no useful purpose except to advertise the author's newly opened dispensary, or some recently invented screw, pad or head rest. The authors in most cases (we could easily enumerate the exceptions, were it proper here to do so) were men who occupied a position intermediate between mechanics and surgeons, but who were rather mechanics than surgeons, and, as a matter of course, they looked upon the whole subject chiefly from a mechanical point of view. They saw nothing in Pott's disease but a crooked spine caused by some accident, and which, like a tree broken by the wind, needs only to be forcibly straightened and properly supported, in order to the speedy repair of its injuries.

The author of the present treatise has broader and more correct views of the nature and treatment of Pott's disease. He is a surgeon as well as a mechanic, and his study and observation have taught him that, as a rule, this form of spinal disease is dependent primarily on some serious constitutional defect, which demands attention quite as much as the local malady; and that the extravagant promises made by most of these specialists, if only they are permitted to apply their own apparatus, are seldom realized.

It would seem that in all the departments of surgery in which mechanical appliances constitute a prominent part of the therapeutics, a strong inclination exists on the part of those who practice them, to over-estimate their ability or the ability of their appliances to accomplish cures. It is so, notably among those who make a specialty of the application of trusses, who devise and apply apparatus for

club feet, for hip diseases and spinal diseases; and there are not a few who assume to treat fracture and especially if they have invented a splint, manifest the same tendency to claim for themselves or their apparatus extraordinary and impossible results. This is probably because these departments are generally sought by men who know more of mechanics than of surgery as a science, and for the farther reason, probably, that just so far as a department leans towards mechanics it leans towards a trade, and the customs, ethics and morals of trade are apt to be adopted.

Possibly, sometimes, it is because they do not know that the simple rules of mechanics can never apply unqualifiedly to living and sensitive tissues, and especially to those tissues when in a pathological condition. Their assumptions as to what they are able to accomplish is, therefore, in pretty exact proportion to their ignorance of the principles of pathology and of surgery. When a writer makes these absurd claims it is to intelligent surgeons a sufficient evidence of his ignorance or trade-like dishonesty; and when, as in the case of the author of the treatise under consideration, he makes no such assumptions, it is presumptive evidence of his intelligence and science-like honesty. This is perhaps a new distinction, but we venture to make it. To the latter class of writers we always give credit for sincerity, and it is a mantle which will cover many faults of style or errors of observation. The misstatements of the former no mantle is broad enough to cover. They cannot be trusted in anything.

The author has furnished in this little brochure a comprehensive but not exhaustive view of the pathology of the affection, the most frequent varieties of which is primary osteitis, or inflammation of the bodies of the vertebræ; primary synovitis being comparatively rare. These primary conditions ending variously, in central necrosis, superficial and profound caries &c., in the formation of pus, of granulation tissue without pus, carious deposits, etc. primary synovitis and primary osteitis. The osteitis siccæ granulosa, and the osteitis suppurativa having all, more or less, their own peculiar symptomatology and therapeutics.

In matters of treatment the author calls attention to what he considers the error of those who suppose that by lifting the spine (suspension) before applying their supports, they have really straightened the spine at the seat of deformity. They do, indeed, increase the height of the patient temporarily, but this is only by overcoming in some measure the natural and compensatory curves. It is of no practical value, so far as the diminution of the "angular" or true pathological projection is concerned; if it did actually diminish it, more harm than benefit would be likely to result.

Even the somewhat increased elevation of the patient caused by the extension and the support of the apparatus when first applied, the author affirms, is in most cases soon lost by the sinking of the body within its supports.

Dr. S. discusses also the value of the plaster-of-Paris support, showing its inapplicability above the 7th dorsal vertebra; while the majority of the cases of spinal caries occur at points higher up. The attempt to extend its application to those cases in

which the disease is above the 7th dorsal vertebra by the use of a jury-mast, is an attempt to suspend the upper portion of the body by the head, and this is impossible beyond a few minutes, without causing great discomfort or distress, or possibly death.

The jury-mast is simply a head rest, and answers the same purpose that is answered by many other, if not much better head rests, long in use by orthopaedic surgeons. As to its straightening, or supporting a crooked back, or causing a permanent upward extension, we would say with the author, "what child could or would tolerate an extension force to the head for a length of time sufficient to cure a spinal curve, as for instance, the second to sixth dorsal, the region most difficult to control in the whole vertebral column."

Dr. Shaffer's monograph is not however, faultless. The style, in general clear, is occasionally a little obscure and now and then pedantic. Why should one say "comprehensive mechanical extension" instead of "extension?" The Germans and many other good scholars are inclined to the kind of pedantry which this phrase illustrates; but, on the other hand, we have observed that writers of small capacity and little scholarship are especially inclined to it. We confess that we have for all such mysterious phrases a great dislike. We prefer that authors would write more as they would talk.

We object to the word "ultimates" frequently used by the author for *results*; and we see no necessity in calling attention so frequently as Dr. S. does to an original thought or suggestion. No writer but thinks he has new or original ideas in great numbers, but he ought not to feel quite certain always that his ideas are original, nor is it in good taste to call especial attention to them, unless they possess unusual importance.

In short, while we are disposed to criticise the book a little, and few books are above criticism, we are disposed to commend it very much; and that is what we cannot say for most books written upon this subject within the last ten or twenty years. Just now this volume is much needed. When the author has written a more complete treatise, or some one else equally competent and equally trustworthy has done so, this will not be needed; but it will still have the credit of having set a good example.

SELECTIONS FROM JOURNALS.

ACUTE MENINGITIS TREATED BY DOSES OF IODIDE OF POTASSIUM.

M. Rodet records in the *Lyon Médical*, 1878, No. 52, the case of a young girl aged 19, suffering from very acute meningitis (fever, vomiting, delirium, sleeplessness, outcries, dilated pupils.) The treatment was by antispasmodics and sedatives. At the end of two days, her state was aggravated with loss of consciousness, obstinate constipation, and monoplegia of the right upper limb. Death seemed imminent. The use of antispasmodics was continued and there was further prescribed a flying blister to

the nape of the neck, and three grammes of iodide of potassium (equal to forty-six grains and a half), in twenty-four hours. The next morning, there was a slight amelioration, especially in the intellectual condition; the same state of paralysis. A purgative enema produced abundant evacuation. The improvement made sensible progress; the paralysis began to diminish on the third day of the employment of the iodide of potassium; on the eighth day it had completely disappeared, and the patient was convalescent. The treatment was continued. The iodide was carried on the first day to as high a dose as four grammes, on the third day to five grammes, and continued at that dose up to the eighth day, and then progressively diminished. This case deserves attention in respect to the successful treatment of so severe an affection as acute meningitis. M. Rodet follows his report by mentioning a certain number of cases cured by iodide of potassium, and cites the opinion of Fossagrives. He lays great stress on the largeness of the dose of iodide of potassium.—*Brit. Med. Jour.*

CONCHININ AS AN ANTIPYRETIC.

Dr. Struppell has treated fifty cases of intermittent fever, enteric fever, pneumonia, erysipelas, puerperal fever, and phthisis with this drug, which has been strongly recommended by Wunderlich, von Bock, and Ziemssen in malarial, intermittent, and typhoid fever. He gives the results of his treatment in the *Allgemeine Medicin. Central-Zeitung* for May 14th. Conchinin was given in seventeen cases of enteric fever, where the cold water treatment was not applicable. The patients were, if possible, bathed during the day; and at night, if the temperature were high, they took one or two grammes (fifteen or thirty grains) of conchinin with diluted sulphuric acid and peppermint water. The effects on the temperature were the same as those obtained by quinine. The fever decreased during the following eight to twelve hours, and at the same time there was a moderate decrease in the frequency of the pulse. Typhoid fever patients vomited, as a rule, from fifteen to thirty minutes after taking the medicine; this, however, did not interfere with its effects, because it had already been absorbed. In a few cases the patients complained of singing in the ears. Given in the form of an enema it did not produce satisfactory results. In twenty cases of intermittent fever, conchinin acted in the same way as quinine. A gramme and a half or two grammes were given in a convenient vehicle from six to twelve hours before the time when the attack was expected, and the same dose, or perhaps a smaller one, shortly before the next attack. Later on half a gramme to one gramme of conchinin was given for several days in the form of pills or capsules; and this treatment in every case was attended by the best results. Conchinin has proved equally efficient in erysipelas and croupous pneumonia, but it has little or no effect on the remittent or intermittent hectic fever often met with in phthisis.—*Brit. Med. Jour.*

"FOLIE A DEUX."
AN INSTANCE OF APPARENT CONTAGION
OF INSANITY.
(MELANCHOLIA.)

BY
E. C. SEGUIN, M. D.

K. L., aged 28, a single woman, seen in consultation with Dr. A. Jacobi, May 19th, 1877. There is a complex history of nervousness, hypochondriasis, and approach to hysteria in the last two years. Lately well-marked hypochondriacal melancholia, with constant talk of disease of the brain, extraordinary symptoms, etc. Patient has the facies and manner of a hypochondriac. Inquiry has revealed the important fact that for some time patient has practiced self-abuse, and has endured great self-reproach in consequence. Seen again on June 3. Is in full acute melancholia, refusing food, attempting suicide, not sleeping, growing weaker. Sent to Asylum.

P. L., a sister of the preceding patient, aged 25 years, was seen on June 12th. During the illness of K. L. she had become nervous and depressed, and was removed from home to some friends. But she there grew worse, and at the time of K.'s commitment (June 3) she was decidedly melancholic; reproaching herself for having caused her sister's ruin, declaring that she was not fit to live, etc. It appears that these two young women had slept and masturbated together. When seen June 12, fully developed acute melancholia is observed; is worse than her sister. Sent to the Asylum.

The mother of the patients had once been insane.

It is interesting to add that both these patients recovered within eight months, and are now well.

These two cases well illustrate the ætiology of *folie à deux*, or contagious insanity, as explained recently by Falret and Lasègue in an important memoir.* It is not the exhibition of the insanity of the first party which causes the insanity of the second party; in other words there is not a true contagion. Both parties must be predisposed to alienation, must live in the same moral atmosphere, be exposed to the same exciting causes, and experience similar or corresponding emotions and conceptions.

These conditions of apparent contagion or nearly simultaneous development were found in all of Lasègue's and Falret's cases, and they are well exemplified in ours. Both the patients were children of an insane parent, both had enjoyed certain emotions and committed physical excesses together, both felt acute remorse for the vicious indulgence, and the second suffered in addition moral torture from the notion that she was responsible for her sister's illness.—*Archives of Medicine*.

TRAUMATIC PEDAL NEURALGIA OF ONE
YEAR'S STANDING RAPIDLY CURED BY
THE ACTUAL PLATINUM CAUTERY.

BY
E. C. SEGUIN, M. D.

Dr. K.—g, aged 50, seen December 25, 1877. Is a man of good constitution; never subject to neu-

* La folie à deux, or folie communiquée. *Annales Médico-Psychologiques*, Nov., 1877, p. 321.

ralgia. A little over two years ago one wheel of his wagon passed over the end of his right great toe, producing a moderate bruise but no fracture, luxation, or cut. In a few days he was perfectly well. In the last twelve months has suffered from gradually increasing pain in the toe which was injured, and along the inner side of the sole of the foot as far back as the ankle. The pain is burning, pressing, aching, not lancinating. It is worse in the daytime, and is aggravated by using the foot. No numbness or anæsthesia has been observed, but, on the contrary, there has been great hyperalgesia of the affected region, with some tumefaction and great hyperæmia. No pain above ankle; but patient has "fancied" that he had slight "sympathetic" pains in the left great toe and in the pulp of the right thumb, when the pedal neuralgia was greatest. No head symptoms; no signs of paraplegia; bladder normal. No gout. Has been confined to the house for four and a half months.

Examination.—Right great toe and inner half of foot tumefied and red; the veins are large and there is much capillary stasis. No nodosities or other lesion exist about the affected toe. No true neuralgic tender point can be discovered, but some time before Dr. K. discovered one beneath the internal malleolus, near the sole. The whole right toe is very tender, and the chief pain is experienced along the internal aspect of the toe to its point.

The left great toe is rather reddish but not tender. When patient stands the passive congestion becomes enormous, and extends almost up to the groin. Repeated measurements by Dr. K. and myself show that the right foot (back of toes) is .5° C. hotter than the same part of the left.

The doctor bears the facial expression, and has all the attitudes of one who has suffered greatly from neuralgia. He has tried nearly all remedies and applications without relief.

Diagnosis.—Traumatic neuritis of branches (and trunk?) of the internal plantar nerve.

I employed the actual platinum cautery applied over the posterior tibial nerve behind the malleolus, and on the seat of pain; no medicine was given. The first application gave relief; after the third burning Dr. K. was able to walk, and after the sixth the neuralgia disappeared; these cauterizations were made at intervals of two days. The great hyperæmia of the lower extremity continued. Dr. K. resumed his practice.

Early in May, 1878, a slight relapse occurred, which was completely cured by two or three applications. Since that time there has been no return of neuralgia, though the toes are the seat of slight semi-painful or cramp-like sensations. The hyperæmia had almost disappeared by autumn. In the past year the patient has not lost one day from neuralgia.—*Archives of Medicine*.

IODOFORM AS AN EXTERNAL ANTI-
PYRETIC.

In an article in the *Deutsche Medicin. Wochenschrift* for June 7th, Dr. Colsfeld of Bremen describes a case in which he accidentally found that the external application of iodoform was followed by a lowering of temperature. The subject was a

phthisical patient, whose temperature had risen to 103.4 deg. Fahr. He complained of troublesome ill-defined pain in the left front of the chest, for the relief of which, other means having failed, iodoform collodion (having a strength of 33.3 per cent.) was applied. The next day, the temperature had fallen to 98.6 deg. Fahr., and the pain in the chest had entirely disappeared. The iodoform was then omitted, and the temperature again rose; but it fell when the iodoform collodion was reapplied, the strength now used being ten per cent. The odour being unpleasant, the patient discontinued the application for two days; but the febrile symptoms set in so energetically that he again had recourse to it, with marked relief. Dr. Colsfeld says that he did not observe any ill effects to be produced by the application of the iodoform, but he thinks that the expectoration was reduced in quantity. He does not pretend to say that the application would be useful in reducing the febrile process in the purely inflammatory affections of the lungs, pleura, peritoneum, etc.; but he suggests that it might be tried. The author refers to the observations of Binz, who found that the internal administration of iodoform had the effect of reducing the respiration, pulse, and temperature in a cat.—*Brit. Med. Jour.*

INHALATION OF EUCALYPTUS OIL.

Dr. Mösler of Greifswald (*Berliner Klin. Wochenschrift*, No. 21,) strongly recommends oil of the leaves of eucalyptus, administered by inhalation, as a remedy for pharyngeal diphtheria. The strongest dose which he has given was according to the following formula: oil of eucalyptus leaves, 5 grammes; rectified spirit, 75 grammes; distilled water, 170 grammes; to be shaken together and used for ten inhalations. In this dose the medicine was inhaled four times daily, for ten or fifteen minutes each time, by a patient suffering from bronchitis and chronic laryngitis; it produced no troublesome effect, but acted as a powerful expectorant. Another formula employed by him was: oil of eucalyptus, leaves, 2 grammes; rectified spirit, 20 grammes; distilled water, 180 grammes; for ten inhalations. This was given with the best effect in a case of croupous pneumonia in the stage of defervescence, with residual infiltration of the right upper and middle lobes. It was inhaled four times, without any bad effect. A still weaker preparation (1.5 of eucalyptus oil, 15 of spirit of wine, and 200 of water) has been used by him in several cases of nasal and pharyngeal catarrh, and also in a case of acute pharyngitis accompanied by slight laryngitis, with good effect. Dr. Mosler is engaged in further researches on the action of inhalation of eucalyptus oil in affections of the respiratory organs.—*Brit. Med. Jour.*

THE TREATMENT OF DENTAL PERIOSTITIS BY RESECTION OF THE ROOT AND REPLACEMENT OF THE TOOTH.

M. Magitot, so well known in connection with the late Charles Legros for his experimental investigations of the mode of growth of the teeth, has just made an important contribution to the therapeutics of

periostitis about the roots of teeth, an affection which is often brought to the notice of surgeons by the formation of neighboring abscesses and fistulae. In 1820 Delabarra, a French surgeon, drew a tooth which was the cause of a fistula, cut off a portion of its root, and replaced it successfully. A similar operation was done in 1853 at Montpellier, and in 1870, Messrs. Coleman and Lyons, of St. Bartholomew's Hospital, London, published fourteen cases treated in this manner, with nine successes. Since that time a number of French surgeons have performed the operation, and in 1878 Dr. David collected and published twenty new cases with only one failure. Magitot, performing the first in 1875, has now done it sixty-three times, with five failures.

The diagnosis is easily made, for it is usually indicated by distinctive and well-marked lesions, such as inflammation or abscess on the alveolar border or the face, denudation and partial necrosis of the maxilla, and fistula upon the mucous or cutaneous surface. The local pathological condition is periostitis and caries at the apex of the root of a tooth, with destruction of the bulb and its vascular connections. The therapeutical indication is the removal of the diseased portion of the tooth. Occasionally it has been possible to do this by introducing a pair of Liston forceps through a large alveolar fistula and cutting off the affected portion of the tooth, but the cases in which this can be done are very rare.

M. Magitot recommends the following procedure: 1. Careful removal of the tooth without bruising the gum and without lateral motions which might splinter the alveolar wall. 2. Resection with cutting pliers of the affected portion of the root, and filing of the edges. If the crown is also diseased, it must be scraped or filled in the usual manner, the root being kept enveloped in a cloth wet with warm water. The socket is then examined, splinters removed, and a fistula made (if one does not exist) by drilling through the alveolar wall. 3. As soon as the bleeding has ceased, the tooth is replaced in its socket, and fastened there by a figure-of-eight bandage or a gutta-percha shield. The fistula must be kept open for a few days by a drainage tube or by frequent probing. The local reaction is slight, new adhesions are formed in a few hours, and complete recovery with closure of the fistula usually takes place in less than a fortnight.

This treatment is usually unsuccessful in those cases in which the pus has made its way to the surface alongside the tooth, the failure seeming to be due to the alteration or destruction of the periosteum in the line of the fistula, and the consequent diminution of the surface by which the new adhesions must be formed. The ages of M. Magitot's patients ranged from 16 to 55 years, and in about three-fourths of the cases he filled the cavities in the teeth before replacing them.—*Bull. de la Société de Chirurgie, Archives of Medicine.*

THE POISONOUS INFLUENCE OF ALCOHOLS.

DRS. DUJARDIN-BEAUMETZ and Audigé have recently published a work, setting forth the result of

their experimental researches on the toxic power of the various alcohols. This volume is chiefly composed of the diary of nearly three hundred experiments, which the authors have carried out with perseverance and method, which give to their researches every possible scientific value. The object which they proposed to themselves from the outset has been, not to compare the action of alcohol on animals with its action upon man, but to compare the effects in the same animal series of the various alcohols. Every one knows that modern chemistry, greatly aided by the researches of M. Wirtz and M. Berthelot, has succeeded in isolating the products of fermentation, and in obtaining, by distillation or by synthetic constitution, bodies which, by their composition and by their properties and by their action on the organism, differ more or less from methylic alcohol, or the alcohol of wine, which is the type of alcohols. It is known, moreover, that these bodies have been divided into monatomic or polyatomic, according as their atomic combinations are more or less complex. The experiments of Dr. Dujardin-Beaumetz and Dr. Audigé have related to these various compounds, either alone or combined in a variable proportion; only wishing to occupy themselves with acute alcoholic poisoning, they have taken, as the limits of toxic doses, the quantities of pure alcohols which, in proportion to the weight of the animals, are necessary to cause death in the space of from twenty-four to thirty hours, with gradual and persistent lowering of the temperature; and it results, from their numerous experiments, that the toxic power of the alcohols is so much more energetic in proportion as their atomic constitution is the more complex. Now, that which constitutes the chief interest of these researches is that the majority of these alcohols—propylic, butylic, amylic, ænanthic, caprylic, etc.—enter in variable proportions into the composition of the alcohols sold under the name of brandy in the cheap trade in drinks. Having now ascertained the toxic effects of the various alcohols on which they have experimented, in an isolated form and in a state of purity, they are about to undertake a new series of researches, with the object of studying on the guinea-pig the effects of chronic alcoholism, employing exclusively those spirits which are daily sold in the cheapest drink-shops. The interest from the point of view of public health on such researches does not need to be insisted on. Already M. Bergeron, who reports on these researches, had laid before the Academy his grounds for believing that the impurity of the beet-root spirit, grain spirit, and potato spirit, which at present have largely replaced the alcohol of wine in consumption of spirits, is responsible for the violent and brutal forms of modern drunkenness, and the gravity of the alcoholism observed in our days. M. Michel Lévy, as well as Messrs. Fauvel and Bouchardat, share those opinions, and concur in conclusions which aim at restraining the production of these commercial alcohols as dangerous to the moral and physical hygiene of the population.—*Brit. Med. Jour.*

ON THE DURATION OF THE LIFE OF THE FETUS IN UTERO AFTER THE MOTHER'S DEATH.

This question has been carefully investigated by C. Garezky, in his inaugural dissertation, St. Petersburg, 1878 (and *Wien. Med. Woch.*, No. 22, 1879). He has collected 379 cases, in which the Cæsarean operation was performed after death; 308 infants were extracted dead, 37 showed signs of life, 34 were born alive; but of these, only five remained alive for some time. The author then gives a sketch of Breslau's experiments on animals, and sums his conclusions up as follows: 1. The foetus undoubtedly survives the sudden death of the mother. 2. If it can be extracted in the course of the first six minutes it may be born alive. 3. Six to ten minutes after the mother's death the child may still be alive, though slightly asphyxiated. 4. Ten to twenty-six minutes after death the infant is highly asphyxiated. 5. In a great many cases the infants are either highly asphyxiated or dead after the first minute. 6. The shorter the time is which elapses between the cause of the mother's death and the ceasing of the cardiac action, the longer the foetus remains alive. 7. If the mother's death have been caused by some quickly acting poison the chances for the child's life are greater than when it has been brought on by some other cause.—*Brit. Med. Jour.*

CORRESPONDENCE.

ADDENDUM TO THE CONTROVERSY ON CHRONIC SPASMODIC STRICTURE OR URETHRISMUS.

To the Editor of the HOSPITAL GAZETTE:

DEAR SIR—In the last issue of THE HOSPITAL GAZETTE (July 12th, '79) Dr. Sands, in retiring formally from the controversy, which he opened in your journal Feb. 13th, 1879, calls attention to three alleged misquotations, in the article published by me in the GAZETTE of June 28th, in reply to an article of his own, published in a previous issue.

The first alleged misquotation is as follows:

"He has mistaken the natural obstacle situated in front of the triangular ligament for a muscular spasm."

Whereas, he shows that, instead of this, he wrote:

"He has mistaken the natural obstacle *I have referred to*, as situated in front of the triangular ligament, for a contraction of the urethra occasioned by spasm."

In the second instance, I quote him as having said:

"I have heard of other cases in which death has followed the employment of the dilating urethrotome."

Instead of which it is shown that he wrote

"I have heard of a number of cases in which death *has resulted from* the employment of the dilating urethrotome."

I am not conscious of any attempt or desire, at any time, to misrepresent Dr. Sands, in the least particular. I fully intended to have made my quotations from his article correct both in the spirit and in the letter. I am at a loss to know how the insignificant verbal errors, above shown, could have crept into my article. Any attempt, however, to make it

appear that there is a substantial difference between the two versions, in either case, must, I think, be set down as of the nature of a quibble.

For the third instance of alleged misquotation, Dr. Sands attempts to show that my so-called "*verbatim et literatim*" transcript of the New York hospital record, was not *verbatim et literatim*. He places my version of the case of F. Whitehead* in one column, and another version of the same case in a column parallel to it; thus virtually claiming his to be the genuine transcript, and mine to be a false or mutilated one; leaving the inference that the records had been falsified, by me, for the purpose of strengthening my position in the late controversy between us.

Except that this unamiable attitude of Dr. Sands constitutes an imputation on my integrity, I should not have thought it worth while to reply. As it is, however, an explanation of the manner in which I obtained my transcript of the case of F. Whitehead, from the New York Hospital records, becomes imperative.

Some months previous to the late attack of Dr. Sands upon me, I sought and received from Dr. Geo. A. Peters and Dr. Chas. M. Allin, surgeons of the New York Hospital, permission to have transcripts made from the records of that hospital, of certain cases which had been the subject of report to, and consideration by the Medical and Surgical Society of New York. And this simply with the intention of introducing them into a volume on the reflex irritations and neuroses of the genito-urinary tract which I was then preparing for publication. My friend Dr. M. J. De Rosset kindly offered to make these transcripts for me. This was done, and cases, to the number of six, were furnished me, by Dr. De Rosset, with the statement that the cases were copied from the New York Hospital records "*verbatim et literatim*."

The case of F. Whitehead (two versions of which are cited by Dr. Sands), was one of the cases transcribed by Dr. De Rosset. As soon as I became aware of Dr. Sands position in the matter, (Monday, July 21,) I communicated with Dr. De Rosset, sending him a copy of Dr. Sands implied charges, and asking him to give me a statement of his connection with the matter. On the afternoon of the same day I received the following letter in reply:

(Copy.) No. 2400 MADISON SQUARE,
New York, July 21, 1879.

DEAR DOCTOR OTIS—In reply to yours of this date, I beg leave to state that I made *no alteration whatever*, in the six cases of stricture which I transcribed for you, last winter, from the records of the N. Y. Hospital, but copied them precisely as they stand in a large folio called the "Record of Operations," which is in possession of the House Surgeon, and which appears to be the book for original entries.

The case of F. Whitehead stands on page 24 of that book *precisely as you have stated it*, and I can account for the discrepancies between Dr. Sands' version of it and your own (*which I know to be correct*), only by supposing that alterations were made in it by the clerk who transcribed it from the "Record of Operations" into the "Case Book,"

* Page 262 of the Gazette, and 8 of the reprint.

from which Dr. Vandervoort appears to have copied it for Dr. Sands.

Very truly yours,

M. J. DE ROSSET.

DR. F. N. OTIS, 108 West Thirty-fourth street.

The two versions of the case of F. Whitehead, as cited by Dr. Sands, are so contrasted that the differences in matter and meaning between them appear at the first glance to be of the gravest character. A careful scrutiny, however, will disclose the remarkable fact that *there is really no practical difference between them*. The *apparent* difference results from an ingenious or accidental arrangement of the paragraphs and spaces. Dr. Sands says: "I desire (he desires) to draw attention to three misquotations, * * * leaving the reader to draw his own conclusions," and closes by "confessing my (his) inability to discover what meaning Dr. Otis ascribes to the words '*verbatim et literatim*.'"

Is it possible that Dr. Sands has taken the trouble to cite these alleged misquotations simply to call the attention of the medical profession to my presumed inability to appreciate the meaning and force of the words "*verbatim et literatim*?" If this is the fact, Dr. Sands has trifled with the medical profession and with the important questions at issue in the late controversy. If, on the other hand, with his known opportunities for ascertaining all the facts of the case, Dr. Sands has attempted to show, as he appears to have done, that my version of the case of F. Whitehead is a false one, his culpability cannot fail of recognition by all who interest themselves in the matter sufficiently to appreciate the nature and gravity of the questions and interests involved.

F. N. OTIS, M.D.

108 West 34th St. NEW YORK, JULY 21st, 1879.

NEWS ITEMS AND NOTES.

Hindoo Medical Science.—An appeal has been made by a Calcutta Baboo, named Rajendianath Datta, for a sum of 200,000 rupees wherewith to found a "free Ayur Veda College for the education of Hindoo physicians." The prospectus states "that in India, treatment, according to the Hindoo system of medicine, is generally more efficacious than that according to a foreign one. As our bodies are formed of and nourished by Indian materials, it would be against nature if medicines brought from foreign countries suit our constitution in time of illness. It is a fact greatly to be deplored that, owing to the influence of various social changes to which India has been subject, the hard-earned gems of Hindoo medical science have become dim and soiled by disease, and are about to be lost and forgotten." If the Baboo cannot get the whole amount asked for, he is content to start on a smaller scale. That he relies strongly on the "gems of Hindoo science" is evidenced by the item in the monthly estimates for the purchase of "rare medical works from distant places," twenty-five rupees, which would certainly, at the present rate of exchange, represent a very modest library fund.

Large Urinary Calculi.—At the recent meeting of the Society of German Surgeons in Berlin, Dr. von Langenbeck showed a calculus weighing 600 *grammes* (more than 21 ounces avoirdupois) which he had removed from the body of a man who had had stricture of the urethra. The stone nearly filled the bladder; it was composed of phosphates, and no foreign body could be found as a nucleus. Dr. Thiersch, of Leipzig, said he had successfully removed a calculus two-thirds as large as that described by Dr. von Langenbeck, from a man who had broken off about an inch of paraffin bougie in his bladder. No paraffin, however, could be found in the calculus.

The Late Sir James Simpson.—Dean Stanley has sanctioned the erection of a bust of the late Sir J. Y. Simpson, Bart, M. D., in Westminster Abbey. The bust is by Brodie, and is to be placed near the monuments of Telford and Sir Humphry Davy. The inscription on the pedestal, as approved by Dean Stanley, is: "Sir James Young Simpson, Bart., M. D., Edinburgh, to whose genius and benevolence the world owes the blessings derived from the use of chloroform for the relief of the suffering. *Laus Deo.*"

Tape-worm in a Fish.—A fishmonger in Berlin, who had lately received a considerable supply of fishes from the German Ocean, found a tape-worm of the length of two-and-a-half metres in a carp. The worm belonged to the class *Coryophyllacus latus*, which species is occasionally met with in the intestines of the carp, pike, and some birds who mostly live on fish. It is possible that a like cause may have more than once been the origin of tape-worm in the human being.

The Demoniacs of Verzegnis.—We gave lately an account of the curious outbreak of hysterical religious "possession" among some of the nuns in the province of Udine. A correspondent writes that the religious mania which then raged appeared to subside for a time, but it again broke out after the ceremonies of Holy Week; and the *Capitale* gives an account of what it calls "the last act of the comedy of Verzegnis," from which it appears that the devil has again been busy in Friuli. The number of people "possessed" lately has been thirteen, the chief one a handsome girl, by name Veronica Paschini, who has been daily inspired to pour forth a torrent of words in Friulian dialect, mixed with bad Italian and dog Latin, while her father stood by, Bible in hand, to interpret the utterances of his daughter and the prophecies she put forth. These manifestations took place every evening, and a crowd of people assembled at her house to listen to the words which, while they believed they were the words of the devil, they looked on as expressing the will and the works of God. Following her example, but as minor prophets, the other girls of the place gave utterance to strange words, which were supposed to veil some prophetic revelations, and no doubt in time the whole district would have become affected by this hysterical religious mania but for the intervention of the Government. It was at first intended to remove the "possessed" to a hospital, but the people of the district rose against it, and

vowed they would prevent it if it cost them their lives: so it was determined to resort to such a display of force as would render any attempt at resistance out of the question. A company of soldiers was sent down from Udine, who occupied the village, and under their protection the police removed all those who had given signs of possession, without doing harm to any one.

Tobacco-Blindness.—The following are the conclusions at which Dr. Martin has arrived in his recent thesis for the doctor's degree regarding disorders of the eyes produced by tobacco: 1. It is easy to distinguish between amblyopia caused by alcoholic poisoning and by abuse of nicotine, as in both cases the affection presents characteristic symptoms. 2. The most important of these symptoms is the condition of the pupil, which is dilated in alcoholic amblyopia and contracted in the other case. In the first case the affection progresses irregularly and with occasional changes for the better, which are followed by relapses, while in the second case its progress is slow, but uninterrupted. In the one both eyes are always affected to the same extent; in the other, they are not both affected, or at least not simultaneously. The patients do not see as well at night as during the daytime, and do not suffer from hallucinations, illusions of sight, or diplopia. In alcoholic amblyopia, on the contrary, the patients cannot bear a strong light, see better during the night, and complain of hallucinations, polyopia, and diplopia. 3. Visual disturbances, when connected with poisoning by tobacco, are manifested under the following forms: *a.* binocular amblyopia; *b.* muscular amblyopia with central scotoma; *c.* amblyopia caused by both tobacco and alcohol.

The Diphtheritic Poison.—A singular instance of the vitality of the poison of diphtheria is reported in the *Vratschebnia Vedomosti*. A gentleman in the south of Russia had, four years ago, lost a boy from diphtheria. A family vault having recently been constructed, the coffin of the boy was transferred thither. Before it was lowered down into the vault, the father wished to look at the body, having entertained a suspicion that the child had been buried alive. An opening was accordingly made in the lid of the coffin, the whole family including the five children, looking on. The next day all the children were ill with diphtheria, and one of them has since died.

Value of Professional Services in Germany.—"Complaint has been made in some provincial villages and towns that there is great inability to get medical men to supply the places of retiring parish doctors; and from this it was inferred that doctors are too few. A parish doctor was advertised for by one town, and in consideration of his services he was to receive the sum of 300 *guldens*, and his traveling expenses, etc., were to be provided for by an extra 150 *guldens*. The work was such as would require all his time, and yet this honorarium was enough to cause keen competition between two candidates. Upon one occasion, a village was required to provide for itself a parish doctor; and so poor were the inhabitants, that they tried to evade the law; and one of the town-councillors said that, for his part, he thought the village lawyer quite up to all that was required."

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CLINICAL LECTURE ON DISEASE OF THE HIP JOINT.

Delivered at Bellevue Hospital, New York.

BY
LEROY M. VALE, M. D.,
Surgeon to the Hospital, etc.

GENTLEMEN—The patient before you was sent from Canada to Dr. Sayre with the expectation, as I am told, that it would prove a suitable case for excision of the hip. As the doctor is unable to examine him at present, he was referred to me, and has been taken into my service in this hospital. I have gotten from him, after much cross-questioning, his history, which the House Surgeon will be kind enough to read.

C. H., colored, æt. 21, single. About six years ago, while endeavoring to see how high he could kick, lost his balance and fell, striking the upper part of his right haunch (more exactly, a point two or three inches posterior to the anterior superior spine of the ilium) against the ground. As the result of this fall he was stiff for perhaps ten days, and then was well again. Before and after this time he had many falls upon this part without apparent injury. Six months after the fall before mentioned he was kicked by a shod colt just above the right trochanter. He suffered no immediate inconvenience, except some pain on walking. Two months later, however, the limb began to "bother" him; yet he continued to walk for a year after this last injury, and still another year with the aid of a stick. During this time the foot became inverted, the limb shortened and flexed. The foot was at no time everted, the patient feels confident. At the end of two years after the injury he entered a hospital in Toronto. Here extension by weight and pulley was applied to the limb. The flexion was thus overcome, and, as a result, a part of the shortening. After six weeks' treatment he left the hospital, and was able to walk with a stick without suffering. In this condition he remained about two years. He then began to suffer pain, and an abscess formed on the inner side of the thigh, which was opened by his attendant, and about a pint of fetid pus evacuated. A few days later two pieces of bone came away, which the doctor said were the head and neck of the femur. Some six months later (upwards of a year ago) he again entered a hospital, but in another town. While there an incision was made, under ether, over the trochanter, either for drainage or with the expectation, as the patient thinks, of finding dead bone, but none was removed. Since that time he has been going about on crutches, but from both the incisions there has been a free and continuous discharge of pus.

So far the history. The man is so sensitive to handling that anæsthesia is necessary to a proper

examination, and I have deferred it until now, in order that it might be done once for all, and that you might have the benefit of seeing it done. But from the history and from such knowledge of the case as can be gained from simple inspection, I am sure that if it be a case of hip disease at all, it is an unusual one, and that the hip joint is not alone involved.

While the patient is insensible, it is of course impossible to gain any evidence of tenderness, so I shall be obliged to ask you to take instead of a demonstration, a statement of the points of tenderness as made out in the ward. Striking against the trochanter or against the foot, causes no pain, as is usual in hip disease, but the ilium above is very tender on pressure. Attempts to move the limb, moreover, excite pain, or at least discomfort.

You have seen in this room so many cases of hip disease in its various stages, that I need not go over in detail its peculiarities. Now, that the patient is fully anæsthetized, we may examine him. Note first the position of the limb. The pelvis is nearly at right angles to the spine, yet the diseased limb lies parallel to its fellow, it is markedly shortened and slightly everted. You remember that the first stage of hip disease has no distinct position, but that the motions of the joint are restricted in various ways. The second and third stages have distinctive positions; the second being marked by flexion, eversion, abduction and apparent elongation; the third by flexion, inversion, adduction, and shortening, apparent or real. Now notice that while this limb is slightly everted, and if the back were flattened, would be slightly flexed, the other signs of the second stage are wanting; and while the abscesses suggest the third stage, shortening of the limb is the only other symptom of that stage here present. You doubtless observed also as the history was read, the ease with which the distortion of the limbs was overcome by traction. This is not usually the case when we have to deal with ordinary hip-disease, traction overcomes the deformity very gradually, if the disease has already much headway. The patient claims, moreover, that the limb never was everted.

Now notice the peculiar shortening of the limb. Measuring in the usual way we find the left limb to be 28 inches and the right 25. If we repeat the measurement, taking the trochanters and malleoli as fixed points, we have left, $27\frac{1}{4}$ inches; right, $25\frac{1}{2}$. The discrepancy, measuring from the anterior superior spinous processes was three inches, measuring from the trochanters one and three-fourths. One and one-fourth inches, therefore, of the disparity is due to displacement of the trochanter on the diseased side. Let us verify this in another way. You have often seen here the test, known as Nélaton's or Roser's, of carrying a line from the tuber-ischiæ around the hip to the anterior spinous process of the ilium. If this line is drawn straight, it will cross almost exactly the top of the trochanter, if the latter be in a normal position. Applying this test to the left side we find the trochanter just as we should expect it to be in a sound limb; but when we lay the measuring wire on the right side the top of the trochanter is far above the wire, at least two and a half inches, I should think. The trochanter, therefore, is no longer

in its normal relation to the pelvis. You have heard discussed the question of the so-called dislocation of the third stage of hip disease, and have been shown that it commonly consists, not of an ordinary dislocation, but rather of a migration, (through erosion), of the acetabulum upward, and with it of whatever remains of the head or neck of the femur. Nevertheless, a true dislocation may occur in hip disease. This, however, I think, is not such a case, the position of the limb will not allow us to so consider it.

You notice, also, that when I press upon the right iliac fossa that my hand does not sink into the pelvic excavation as it does upon the left side. The right side indeed is quite filled up with a mass, hard and wooden to the touch. When the abdomen near this part is pressed upon, pus is forced, or, as the patient has expressed it, "pumped" out of the opening near the adductor tendons, and to some extent the other opening, and this condition of affairs has existed for some time.

Examination by the finger per rectum gives a verification of the condition of the iliac fossa, that is: the same wooden mass is recognized, but I find no opening in the bowel, nor did I expect to find one, as there has never been any discharge of pus from the rectum.

A flexible probe passed into the sinus which opens near the adductor tendons, goes a little way upward toward the pelvis and then curves outward in the direction of the upper part of the femur or toward the situation of the lesser trochanter in a sound bone. The probe is then arrested, apparently being entangled in the soft parts, at all events not striking exposed bone. I think it turns outward before actually having entered the pelvis. Into the opening on the outer side of the limb, the probe enters several inches, passing in a direction upward and slightly inward, but is again arrested without touching bone.

Into the more internal sinus I now crowd my finger; it passes in the same general direction as did the probe, but I can recognize nothing except the walls of the sinus and its surrounding soft parts. I fail to touch bone. Introducing the finger into the outer sinus, by crowding pretty firmly, the pelvis is reached.

The tip of the finger passes into a cavity in bone, with hard, defined edges. At a point corresponding, as nearly as I can measure by my finger, with the anterior and lower margin of the acetabulum, my finger is pinched between a tolerably sharp, but not exposed or rough, edge of bone and a firm bar, the shaft of the femur with some soft parts, to the outer side. The finger tip touches nothing, the phalanx being held in the grip of the bones as before mentioned. As far as the finger can recognize the peculiarities of this cavity they are those of a perforated and somewhat distorted acetabulum. Nowhere, however, does the finger touch bone seemingly diseased or in a condition to indicate its removal.

It has been advised in this case to make an explorative incision over the trochanter with the view of ascertaining if any diseased bone be in that neighborhood, and especially with the hope of finding a more direct outlet for the pus and of making it possible for the canal through the pelvis

to become closed. Such an incision I now make, a simple straight cut, beginning by plunging the knife in a couple of inches above the trochanter and carrying it downward over that bone. You see the trochanter exposed in this wound, but there is no evidence of any tendency of pus to burrow in this direction. Apparently the fibrous tissues have made a strong new attachment between the pelvis and the upper part of the femur, which will, if the man ever gets about again, give a tolerable support to the limb. I do not think it proper to disturb these sound tissues with the object of simple drainage. This opening will, therefore, be closed and I presume will readily heal. This case has several points of interest, although they are of what we may call negative interest.

First. The case seems to be decidedly of traumatic origin, and yet two months elapsed before any inconvenience followed.

Second. Although the history and present condition of the patient give very few of the ordinary signs of hip disease, yet the disorganization of the joint is shown by the position of the trochanter, by the condition of the acetabulum, as recognized by the finger and by the reported extrusion of the head and neck of the femur from the sinus on the inner side of the thigh.

Third.—The amount of lameness and disablement complained of is remarkably small as compared with the extent of disease found and inferred.

Fourth.—The present condition of the parts, the site of the injury received, the history, which lacks so many peculiarities of hip trouble, render it probable, but not certain, that the disease attacked the ilium first, and that the joint was involved from the acetabular side, which you know is not the rule. I have seen many cases of disease of the pelvic bones, some in which the hip-joint was free from disease, and the true trouble easy of recognition; others in which the caries had been mistaken for morbus coxarius, and still others in which, as in the present case, the joint and the pelvic bones were both involved, and in which the pelvic trouble was so important as to entirely mask the fact that the joint was diseased.

In this case I do not see my way to any operative procedure. Drainage of the diseased parts will be attended to, and the rest must be left to an intelligent, expectant treatment. Do not misunderstand the expression. It is not a synonym of "do-nothing" treatment any more than a sentinel is a loafer. The "expectant" surgeon watches for his opportunity, content not to interfere if he can do no good, but prompt to act if that opportunity does come.

ORIGINAL ARTICLES.

CASE OF MIXED TUMOR (SARCOMA AND CARCINOMA) OF THE PERITONEUM.

JULE E. MARCUS, M.D.
Cincinnati, Ohio.

I am led to report this case from the comparative rarity of this kind of new formation of the peritoneum and from some peculiar points in its history; viz., the appearance and amount of fluid present,

requiring repeated tapplings, the extent of the disease, the comparatively normal condition of the other abdominal, the thoracic viscera, and the extent of the disease without any pain and but little discomfort. The diagnosis was not made *positively* until the holding of the post-mortem, and even then there were doubts in the minds of some of the gentlemen present as to whether the extensive lesion was peritoneal tuberculosis, or carcinoma.

Eliza Otte, æt. 45 years; Germany; married; housework. She was a tall, strong woman, (about six feet high) with fair complexion, light hair and blue eyes. She began to menstruate at the age of eighteen years, and at that time had a sudden cessation of the flow, followed by dropsy and fever that confined her to her bed for some weeks. She soon regained good health and had no illness of any kind up to the date of present attack. She was a very nervous, excitable woman and had of late been greatly "worried" about family troubles. Never had any leucorrhœa; ceased to menstruate in July, 1878, at which time she had some facial neuralgia.

I was first called to see her on the 24th of November, 1878, when I found her complaining of some slight dyspeptic trouble, pain and uneasiness in region of the uterus, and some diarrhœa. She was slightly jaundiced. I inquired particularly at that time for history of cancerous disease in family but could get none. At my daily visit I noticed that fluid was accumulating very rapidly in the abdomen, and on December 5th, I was obliged to tap her, the distention was so great. The fluid withdrawn measured three and one half gallons and was quite viscid and of about the color of beer. The operation gave her great relief, was followed by an increase of appetite and some diarrhœa. The fluid reaccumulating very rapidly, I put her upon diuretic and tonic treatment, but without marked benefit. On the 23rd of December, tapped the abdomen and withdrew about the same amount of fluid. She now began to grow very weak and anæmic and took to her bed, which, with the exception of a few days, she kept till her death.

January 8th. Tapped again. Fluid clearer, and about a half gallon less.

January 17th. Another tapping. Same amount of fluid.

January 25th. Tapped her again. The left leg became œdematous, then the right. The œdema commenced in the feet and extended upwards. As the left leg became less dropsical, the right leg became more so. Urine examined and neither albumen nor casts found.

January 28th. Partial suppression of urine lasting three days. Finally relieved by diuretics and cathartics.

February 1st. Tapped again. Same quantity withdrawn. Cannot lie down between tapplings without sensation of smothering. Fluid would perceptibly accumulate 12 hours after the tapping.

Tapped Feb. 15, Feb. 24, Mar. 3, 11, 18, 24, 30, April 5, 13, 18, 24. From April 18th, the fluid accumulated so rapidly that it was continually draining from the abdomen through the last puncture. She now began to fail very rapidly and died of exhaustion at midnight of May 9th, 1879.

Autopsy, twelve hours after death. Present, Drs.

Thad. Reamy, G. S. Mitchell, H. H. Kane, Coffman, Chas. Tackenberg, L. S. Kelsey, Schneider, D. T. James, J. C. Marcus, and H. Illoway. Great emaciation; rigor mortis not well marked; no cachexia, but integument everywhere coarse and red.

An incision into the median line of the abdomen gave vent to a quantity of pale yellow fluid. Upon completion of the incision, the intestines, which were of a deep bluish-black color, were seen to be mottled over their whole free surface by white and pinkish-white bodies, varying in size from that of a pin's head to that of a pea. These bodies were in some places nodular, in others perfectly flat. They were so thickly set in some places as to produce a twisting of the intestines upon themselves. They were found lying in, upon and beneath the peritoneum. Posteriorly the intestines were found to be matted together by inflammatory exudation. The omentum, which was drawn up, nodular (some nodules the size of a hen's egg), and thickened, was of a reddish color, and was at first mistaken for the liver. When cut into it was found to contain a milky fluid and to be softened and pliable. The liver was deeply congested, but otherwise healthy. The left kidney was smaller than normal, and somewhat cirrhotic. The uterus, ovaries and bladder were normal, as also the spleen, stomach and pancreas. The mucous membrane of the intestine was thickened in some places, but otherwise healthy.

The lungs and pleuræ were healthy, there being some hypostatic congestion of the posterior portion of the former. The heart was very small for so large a person, but its valves and investing and lining membrane, normal. The mesenteric glands were not involved.

Portions of the new formation were taken and examined by Dr. Giles S. Mitchell, a piece was also submitted to Dr. F. Forchheimer. It was found by them to be a portion of a "mixed tumor," sarcoma and carcinoma.

Those who read this case will be as much surprised, I think, as I was at the very slight symptoms, no fever, and no pain, while such extensive disease was so rapidly taking place, and the intestines being glued together by inflammatory adhesion. The whole course of the disease was only a little over five months, a fact that is rather hard to account for in so large and strong a subject. The amount of effusion too was very unusual, about sixty gallons in five months, there having been nineteen tapplings in all.

HOSPITAL RECORDS.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

SERVICE OF J. M. DA COSTA, M.D.

(Prepared for THE HOSPITAL GAZETTE.)

MERCURIAL POISONING FROM FUMES OF CORROSIVE SUBLIMATE, FOLLOWED BY ABSCESS OF THE ABDOMINAL WALL IN THE HEPATIC REGION (SUPPOSED TO BE A SEQUELA OF TYPHOID FEVER) PLEURAL EFFUSION—DEATH.

Herbert Brown, æt. 44, born in England, a jeweler by trade; married. Admitted on October 30th,

1877. Health has been always good, except that he is subject to a slight cough occasionally, and that five or six years ago he passed what he believed to be a gall-stone. He denied venereal infection, but subsequently remembered gonorrhœa and a possible sore. He has always been temperate. He has attended to his business almost daily for twenty years.

About ten weeks before admission, while at his work, he had occasion to use some corrosive sublimate in cupellation. By an accident, a comparatively large quantity fell on the red-hot charcoal, and the fumes filled the room. He was overpowered by these fumes, feeling giddy and faint, but shortly afterwards he found, according to his statement, that he had lost the power of his limbs. He was taken home, and went to bed. The next day his gums were very tender. He had a metallic taste in his mouth, and his breath was bad, but there was no excessive secretion of saliva. The weakness that he complained of continued for three weeks, during which time he remained in bed.

During this period there was no marked fever, but he had constipation and headache, and was slightly delirious at night. At the onset he had some vomiting and abdominal pain. When he got out of bed, three weeks after the accident, he could not go about on account of the pain in his stomach, which was constant, although the bowels were now regular. Two weeks later, an eruption appeared on his body and forehead, which lasted four or five days. It was dry, furfuraceous, and attended with pruritus. Just before admission into the hospital, he had several boils on his shoulder. (The physician in charge of the patient previous to admission reports that he had an attack of typhoid fever, which was in its early stage when the poisoning occurred. Spots were found on the abdomen at that time, and the patient's son was lying sick in the house with the same disease. The patient states, however, that he had no diarrhœa with the attack, and no headache, and that he had not high fever.)

Upon entering the ward his skin was dry, and his temperature 100° . The urine was examined and found to be dark lemon-colored, sp. gr. 1015; no albumen and no sugar. He had a slight cough, but his lungs were clear and his heart normal.

November 1st.—Has been taking Basham's mixture since admission, with apparent benefit, but is still in bed. He still complains of tenderness in the hepatic region, but is otherwise comfortable. Bowels regular.

November 2nd.—Has enlarged liver and epigastric pain, and complains of tenderness upon percussion. His tongue is flabby, but not coated or dry.

November 6th.—A marked rise in the temperature takes place every afternoon, unaccompanied by chills. The patient says that he feels well, except for his weakness and epigastric and hepatic tenderness and pain. He is very wakeful and restless at night. Ordered potassii bromidi, gr., xx.

November 8th.—Bowels moved once or twice in the twenty-four hours, the discharges being dark-colored, or of a greenish-black hue, and are not loose in character, but well formed. He has never passed any blood that he is aware of. He makes water freely, and he never had any swelling of the feet, or any other œdema, or dropsy.

He has no pain when lying still, but movements of the body cause soreness in the hepatic region. He never had bleeding at the nose. Cannot sleep at night; ordered tj. humuli f3j. instead of the bromide. The morning temperatures remain in the neighborhood of 98° , but every afternoon there is a rise of from four to five degrees, without any other signs of disturbance. There is no fetor of the breath, and he seems to be steadily improving.

November 12th.—He has a decided swelling over the hepatic region, first noticed three days ago. Complaining of a good deal of pain in the right side, a poultice was applied last night. General appearance improved. Tongue slightly coated, bowels regular.

November 16th.—Had an attack of shortness of breath yesterday afternoon, so that he could not lie down for some time. After a dose of the bromide of potassium, he was relieved. Some friction was heard posteriorly near the angle of the scapula.

November 18th.—Liver dulness still increased. There is a point at the lower border of the tenth rib and a little to the right of the gall-bladder which is prominent, tense, and very tender. The spot is one and one-half inches outside of the line of the nipple and measures two by one and one-half inches. It is painful only when touched. Liver dulness is observed at the back, commencing one and one-half inches below the angle of the scapula, and recedes when the patient takes a full breath and holds it.

There is indistinct fluctuation in the swelling, but no pulsation is perceptible. There is no aneurism of the aorta.

In order to establish the diagnosis, the aspirator was employed, and half an ounce of chocolate-colored pus withdrawn. This pus came from a spot apparently outside of the ribs.

November 20th.—The abscess is still prominent and tender. Ordered to be again evacuated by aspirator.

November 22nd.—The liver dulness begins at the fifth inter-space and extends two inches below the ribs. The wound discharged all day yesterday, but is again closed. Aspiration gave exit to several ounces of dirty chocolate-colored pus. Ordered to lay it open freely, which was done to the extent of one and a half inches, and the wound packed with lint. There has never been any great reddening of the integument.

November 25th.—Feels very much better; tongue looks cleaner.

November 27th.—The abscess is healing; patient doing well; bowels tend to constipation.

November 28th.—Feels comfortable; wound still open. Has a little fever at night; has not had any passage for two days. Injection given. Ordered quinia increased to gr x daily, and give cod-liver oil.

December 2nd.—The discharge continues, but is diminishing; temperature still irregular: $103\frac{1}{2}$ last night. Bowels moved by enemata; patient comfortable.

December 3rd.—Stomach is very irritable and rejects everything; patient weaker; there is increased dulness at the base of the right chest. (Microscopical examination of the pus withdrawn by the aspirator failed to reveal any hepatic cells.)

December 5th.—Wound doing well, very little dis-

charge, but patient is very weak. There is no pericardial effusion. There is feeble breathing at the base of the right lung, with some râles above the line of dulness. Whisky, f $\frac{ss$., ordered every hour, with an ounce of milk or beef tea. Dry cups to the chest; hypodermic of morphia.

December 6th.—The patient is vomiting a fluid that is black in color and resembles coffee grounds. There are coarse râles in the right chest, with feeble breathing on the left side, the breathing is harsh with very few râles. There is increased tension of abdomen, with diffused tenderness; ordered to be poulticed. Patient died this afternoon. No autopsy could be made.

TRANSLATIONS.

THE TREATMENT OF DISEASES OF THE ORGANS OF RESPIRATION, BY THE INHALATION OF MEDICATED VAPOR.

BY
M. le DOCTEUR J. F. GUILLEMIN.
Translated from the *Gazette Médicale de Paris*,
BY
BARNARD ELLIS, M.D.

HISTORY.

Attempts have been made at different epochs to cure certain maladies of the organs of inspiration, by inhalations of medicated vapor.

Balsamic fumigations, which have almost completely fallen into disuse among us, were much used by the old schools. In 1834 Martin Solon published in the *Gazette Médicale de Paris*, an important work upon the subject of pneumatic medicine. He had been induced to make his "researches" by the opinion of Mascagni, who thought if an efficacious remedy was ever discovered for the cure of pulmonary consumption, it would be found among those substances which could be applied directly to the lungs by inspiration.

Martin Solon proposed an apparatus for fumigation, composed of a flask with two tubes, in which was put the medicated solution, and through which the air should pass before entering into the air-passages; the temperature to be varied according to the nature of the active substance used. In this manner he tried chlorinated and iodized fumigations, then balsamic fumigations of tincture of tolu or benzoin.

In cases of dry catarrh, accompanied with frequent and fatiguing cough, he succeeded in quickly calming the accidents by inhalation of the vapors of a decoction of belladonna. In the same year, 1834, Mr. Magistal published an article in the same journal; and his conclusions were, that the vapors of the narcotics, carried into the bronchial tubes, were the best therapeutic agents in cases of asthma, convulsive and nervous coughs, and whooping-cough. On the other hand Doctor Burdin tried, for cases of phthisis, inhalations of ether, charged with the elements of conium. The evidence was plain that this treatment calmed and palliated the suffering of the patients. Dr. Berton was the first one (in 1828) who tried inhalations of iodine in phthisis-

ical cases, as well as in cases of chronic bronchitis. This treatment being soon abandoned in France, was tried afterwards in England. The question was re-opened by Drs. Pierry and Chastronle, who administered the vapors of iodine by placing a saucer containing fragments of it, near the bed of the patient.

According to Trousseau and Pidoux (*Traité de thérapeutique*) these inhalations produced good effects, particularly in cases of concurrent bronchorrhea. The same authors recommended a special method for the modification of the mucous membrane, viz: "the therapeutics of cases of chronic laryngitis and the various lesions which they produce, or which are produced by them, finds its most energetic resources among the agents which can be carried directly upon the parts diseased. Now, the most advantageous method of attaining this end is clearly the inspiration of medicated vapors. The experiments of others, and particularly of ourselves, have pronounced in favor of aromatic vapors: First, of infusions of labiated plants; second, the combustion of balsamic and resinous substances. These furnish the best materials from which to obtain medicated gases."

In 1845 M. Sales Giron advised the inhalation of gondron and the residence of the patients in an atmosphere charged with resinous emanations. His explanation was that these emanations diminished the oxygen of the air, which he considered as the exciting agent in the progress of the disease.

Whatever may be the value of this interpretation, which seems quite contestable, the favorable influence of these means are not the less well demonstrated.

More recently (*Bulletin de Thérapeutique* 1861) M. Delieux employed with advantage fumigations of incense in cases of bronchitis, chronic laryngitis, granulous pharyngitis and in diphtheritic paralysis of the pharynx and of the velum palati.

In a thesis in competition for aggregation before the Faculty of Medicine of Paris (1866), Dr. Baudot treated at length the subject of different sorts of fumigations and of the inhalation of certain gases (carbonic acid, oxygen), but he hardly spoke of substances employed with the view to act directly upon the different constituent parts of the air passages.

In 1872 Dr. J. Cheron communicated to the Academy of Medicine (November 19) a work upon the arrest of destruction of the lung in chronic phthisis by the inhalations of "oxygenated essences." He employed, particularly in the ulcerative period, inhalations of the essence of "taurus camphora." A great number of trials during eighteen months gave him unexpected success. Under the influence of this mode of treatment the expectoration, the dyspnoea and the cough were ameliorated, the appetite returned, the forces recuperated, the hectic fever diminished and soon disappeared. In a large number of cases all morbid phenomena disappeared.

Finally, Doctor Libermann communicated, several years since, to the "Société de Médecine des Hôpitaux de Paris" the result of his studies upon the effect of inhalations of chlorhydrate d'ammoniaque

in these cases. He used the inhalator of Dr. Sævin, who had himself made important researches upon the same subject.

In England the practice of inhalations had largely spread, and they had there many kinds of inhalators, the specimens of which may be seen now in Paris. I have now two prospectuses of these inhalators for the treatment of affections of the throat and lungs by vapor of hot water, either pure or charged with the active principles of different volatile medicines. I have no information as to the success of these, nor do I know whether any books have been published upon the subject. As we see by this rapid enumeration which I have made, if the method of inhalations has not succeeded in establishing itself as a current practice, it is not in fault of attempts in its favor, and it is nothing that it may have raised objections and found detractors. On the contrary, it ought to be evident to all that we have a right to expect some advantage from a method which permits us to apply the remedy in contact with the diseased tissues. It is quite sufficient for its condemnation that any machine requires dexterity in the handling, no matter how easy it may be nor what advantages are evident, and this is our reason that this means is not in common use.

The inhalations of medicated vapors necessitated an apparatus, and the application needed the surveillance of the physician, and it was this which impeded its popular acceptance. Let us add that perhaps perseverance has failed as to the promoters of the method; but they should have insisted upon the advantages they had gained, produced proofs in support—that is, detailed observations, varied their experiments, etc. This no one has done. Martin Solon was satisfied in remembering what he had done, and those who followed in his path have not seemed to think it necessary to join their labors upon the subject. It is not enough to assert in a vague manner how one has usually done, or that such or such a substance may be employed in inhalations; it is necessary to point out precisely, to determine exactly, in what cases each substance may be employed, and to make known the effects produced. It should be said, too, that certain inconsiderate attempts would naturally compromise the system of medicated inhalations.

ADVANTAGES OF THE METHOD OF INHALATION.

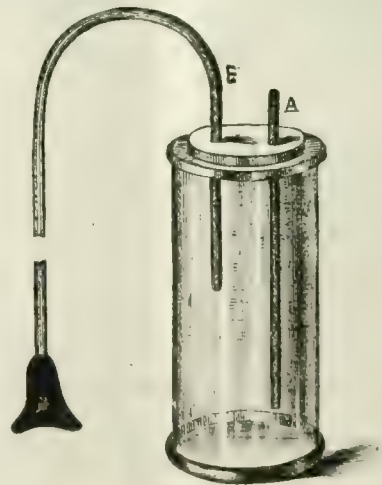
I have but little need to insist upon the advantages of this method; it is evident *à priori*, that a method which permits us to carry directly upon the diseased mucous surfaces the substances destined to their modification, offers incontestable advantages. In place of fatiguing uselessly the digestive organs by employing medicine of doubtful efficacy, is it not more simple and more rational to pass the agent at once to the surface of the lesion, through the medium of the air breathed?

The whole question, then, is reduced to the discovery among the volatiles, the medicaments most appropriate to the various morbid conditions of the mucous membrane of the air passages. Is it to say, that the inhalations of medicated vapors ought to constitute for these diseases a sort of universal panacea, a means sure and infallible of cure? In no manner. We cannot necessarily cure affections of the accessible mucous membranes, simply because

we can treat them by local applications; but it cannot be denied that these applications render the treatment less uncertain than that based upon indirect action. Inhalation, so far as the mucous membrane of the air passages are concerned, ought consequently to be regarded, simply as the most simple and convenient process we possess of carrying the medication directly upon the lesion; but it does not follow necessarily, that it will always be possible to find the modifier or agent capable of triumphing over the disease. But, we are not to conclude that inhalations are to take the place of all other treatment because they in certain cases may give more certain and more satisfactory results than the treatment generally employed. By inhalation we are sure that the medicated substances come in real contact with the parts upon which they ought to act, without having undergone the least alteration. The gases and vapors do not meet in their course any substance upon, or any product of secretion in, the mucous membrane, which can alter them. The same cannot be said for medicaments administered through the stomach, where the action is subjected to all sorts of doubtful chances. The practice which has been in vogue for some time of inhalation of pulverized liquors, has, without doubt turned attention from the resources found in the inhalation of volatile medicines, of which there are two methods, which ought not to be excluded, having care not to confound their attributes. The aqueous dusts, whatever may be their tenuity are never definitive unless suspended in the air, breathed by the patient; there is always a certain tendency to condensation and precipitation upon any obstacles they may meet; and it is quite probable that the greater part of these are so deposited, either in the pharynx or at the superior orifice of the larynx. It is not so with the gases and vapors which, being intimately mingled with the air, penetrate with it to the ultimate ramifications of the bronchial tree. We must reserve, therefore, the employment of pulverized liquids for the treatment of the affections of the isthmus of the throat; the pharynx, the superior parts of the larynx, whilst the inhalations of volatile substances, suit more especially the affections of the bronchia, the windpipe and the interior of the larynx.

DESCRIPTION OF THE APPARATUS—MANNER OF USE.

Among the substances emitting vapors at



the ordinary temperature, I have most frequently employed the iodide and the essence of terebinthina.

The apparatus which I have used for inhalations is very simple. It consists of a small flask with a large mouth, the stopper of which gives passage to two tubes, each open at both extremities. One of these tubes (A) descends in the interior of the flask, the end just to touch the level of the liquid. The other tube, bent at an obtuse angle, is fitted with an India-rubber tube, having a mouth-piece at the extremity for the use of the patient. Thus we see that aspiration produces a current of air from outside through the medicated solution. This apparatus is small and so arranged as to be easily kept clean. I use solid iodine in plates or scales. I put a few decigrammes in the flask, and the diminution of pressure from inspiration is sufficient to produce proper quantities of vapor. That the iodine may last for several inhalations it is best that the inspirations be made by the mouth, and the expirations by the nose. Without this precaution, the aqueous vapor contained in the expired air forms with the pellets of iodine a sort of magma, which will prevent its volatilization.

Patients become quickly habituated to this form of breathing. The inside of the flask must be entirely dry when the iodine is introduced.

Iodized alcohol must not be substituted for the simple iodine. I tried it once only, not having any iodine at hand for the moment, but I renounced it at once, as the patient could not support it on account of its excessive acrimony. The vapors of pure iodine are irritant, it is true, but in a less degree than is generally supposed, and are quite easily supported. Nevertheless, when we practice inhalation for the first time, we should feel our way carefully to the individual susceptibility of the patient, and proceed with great care. The first inhalation should not last more than four or five minutes, and there should be a pause after each three or four inspirations. The respirations should be natural, and we must watch that they are not too deep. Later, when the mucous membranes of the air-passages have become habituated to the contact of the iodized vapors, if thought best, deeper inspiration may be recommended. At first, not more than three inhalations per day, each one of four or five minutes, should be given, the number and duration to be increased in accordance with effects produced. Proceeding with these precautions, there is no risk of accidents. For myself, although I have treated a great many patients by this system, I have never seen any bad effects result, yet we must remember that the inhalations of iodine generally produce a transient exaggeration of the inflammatory state of the mucous membrane; or, when it is a question of chronic inflammation, or of a return to a state of acute inflammation, there is nothing inquieting in the practice, because it is just one of the conditions of success in the majority of cases. The vapors of the essence of terebinthina are less irritant and more easily supported than the vapors of iodine, and there is no inconvenience in using it, nor in increasing the times and duration of the inhalations; but we must always take the precaution to give the patient repose from time to time during the inhalation. To prepare this inhalation, I pour into the

flask a small quantity (10 or 15 grammes) of the pure essence of turpentine, lower the tube (A) just to the surface of the liquid. The essence should be renewed every two or three days. These vapors produce only a very moderate irritation of the mucous membrane. As we shall see, later on, the mode of action is entirely different from that of the vapors of iodine. They are, otherwise, entirely free from dangers. Although they may be absorbed in notable quantities by the respiratory membrane, so as to show a strong violet odor in the urine, I have never seen general symptoms denoting any action whatever of the essence of terebinthina on the nervous centres.

I have sometimes alternated the inhalations of iodine with the essence of terebinthina, and shall indicate further on under what circumstances this practice has seemed to present advantages. Certain substances are volatile, but do not at the ordinary temperature emit their vapor in sufficient quantity for inhalation, and must therefore be heated. Such are, particularly, the balsams and aromatic plants. We must then unite with them steam, that they may be able to produce good effects.



For this purpose I use a little tin-plated copper boiler, (A, fig. 2) the movable cover of which is perforated for two tubes like those of the other apparatus, and for the same purpose. I put in the boiler a certain amount of water holding in suspension or in dissolution the substance destined to the inhalation; then heat the liquid to the temperature desired, by means of a little alcohol-lamp, (B,) placed under the boiler. These two apparatuses are very portable, not complicated nor costly.

They are so made that the patient himself, or at any rate the nurse, can administer the inhalation.

(To be continued.)

THE HOSPITAL GAZETTE,

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and the Collateral Sciences.

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EDITORIAL.

RESPONSIBILITY FOR THE PRESENT SCOURGE.

The presence of pestilence alone can rouse us to effort in opposing it. Neither the sad recollections of the misery endured in former years, nor the mutterings of threatened danger have the power to call us from the active employments of the hour. Like a freshet, the calamity must bear down upon us, wide sweeping in its progress, before any effort, precautionary or remedial, is made. Our fear must be so powerfully and immediately stirred, that its lively action engrosses our whole strength, before the pursuit of wealth is slackened for a moment. It speaks but poorly for man's use of his intelligence that such is the record of experience; that the glitter of riches should so completely occupy his time and energy, that neither memory nor hope should exert an appreciable influence, upon his career.

The presence of the yellow fever scourge, scattering over our fair land, death, destruction and misery, at this moment, not removed in point of time a full year from the last visitation, when its horrors were so terribly realized, would prove how little mankind cares for aught else than wealth. That last year's history is well known. The south had just begun to raise herself from the curse of war and the pestilence of imported politics and politicians, when this scourge came among her people, dealing death and ruin on every side. Her people dropped dead in their homes, or fleeing thence, and the entire nation, yes, civilized Europe was terrified and poured out sympathy towards them. Such a calamity should have taught a lesson to beings who reason, whose boast is their intelligence. Such pictures of distress as that time presented should have been indelibly impressed upon the memory, if sorrow has any real existence, and brought forth substantial efforts for the prevent-

ing of a recurrence. It is almost impossible to conceive of such hideousness passing away into forgetfulness, with that generation, and we doubt the boasted intelligence when we see that proper measures for prevention were not fully and promptly inaugurated and persistently executed.

We are dealing with facts, terrible realities, and they tell us to be plain in speech, swerving not for fear or favor, lest another and another scourge sweeps over us. The yellow fever is again desolating our country. It is in a hundred cities and towns of these United States to-day, and the people are on the verge of panic. The four or five columns of the daily paper devoted to a description of its triumphant march are terribly convincing, and we are admonished to prepare to overthrow this foe to mankind. Former lessons have been poorly learned, and have not added to our safety. Even the horrible reminders of last summer have had a short lived existence.

Now, in the very midst of the suffering, while we know and feel the necessity, something looking to the extinction of this disease must be begun. We are proud to pass in review the generous, prompt and continued exertions of the medical profession upon the subject. During the prevalence of the fever last summer, physicians of ability from all quarters, acclimated or not, rushed to the scene of suffering, assisted, advised and studied the indications. Since, in county society meetings, in state and national conventions, everywhere and at all times, these investigations have been the principal theme of discussion. A practical conclusion was reached; one that bespoke humane motives; a proposition was to be put before Congress, asking for a Board of Health, with executive power, and for some of the people's money to use in preventing disease. The question of contagion was allowed to rest for the time; for whether contagious or not, the medical profession decided that the fever's ravages should be stopped, and then, in the subsequent hours of leisure, with the accumulated observations, as data, discussion could be had. Kill the venomous reptile first, and afterwards examine as to his having teeth, and how many, if you so desired. The profession, without pay, and without the hope of ever being asked to receive pay, did all that was in their power to study the disease, to arouse the people to a realizing sense of the fever's repeating its work of devastation unless barricades were thrown up, to bring themselves to the Congressional level that they might secure legislative authority and a portion of the people's money to save the people's lives. Their record is clear, the medical profession have no sins of omission or commission in this regard to blot their fame.

How then is it that we are in the midst of another

death-harvest from the same seed sown? Our statesmen in Congress assembled, our political masters, were so bothered about having our soldiers placed out of danger, so anxious to quarter them in the midst of their admiring countrymen at the time of election, that they could not give proper thought and consideration to the contagious disease measure until the very last moments of the session. The important task of keeping our army from sitting Bull and his awkward shooting followers, and of preserving the purity of the ballot, a chimera of some lunatic's brain, especially for the benefit of the Southern people, prevented them from seeing that if the Southern people were dead these measures would be useless. Their foresight did not reach to the point that prompt effort to save the threatened lives of the people was positively demanded before there was need of protecting their ballots. They failed to comprehend that dead men cannot vote. Days and nights were consumed, some spirit also, in providing safe resorts for our soldiers on election days; oratory surpassed itself, and wisdom almost ran dry in the discussion, and for what? Not to honor the army, nor to preserve the purity of the ballot, but to get party lines drawn for the next election, to make arrangements for re-election. Crisis and fraud may be sounded in our ears, but they do not mislead anyone, the members of Congress at the late extra session aimed only to make their re-election reasonably certain. They aimed at nothing beyond, and only the pressure brought to bear in favor of the contagious disease measure by the profession secured its passage at the last moment. That delay, until the fever was about ready for its harvest, prevented effective precautionary measures this year, therefore, yellow fever is raging in our land, and our statesmen have the blame for it charged to them.

Our query as to the means of prevention is easily answered. Relieve such statesmen as failed to promptly appreciate the importance of sanitary legislation from the worry of their positions. Examine the record, and as each one measured his love for humanity by vote and speech, so honor him. The final adoption of the bill, with a reduced appropriation, gives us hope that official medical action will be taken to make this the last successful campaign for the fever.

SOCIETY PROCEEDINGS.

MEETING OF THE PATHOLOGICAL SOCIETY, JUNE 25, 1879.

After the reading of the minutes of the previous meeting, the report of the microscopical committee was read by its chairman, Dr. Carpenter. The larynx presented by Dr. Beverly Robinson, in May,

1879, had been examined and found to be normal, no miliary tubercles having been detected. Another specimen presented at the same meeting had been examined by Dr. Amidon, but had been found too far decomposed for anything definite to be ascertained.

Dr. White presented a specimen of

PERFORATING ULCER OF THE ANTERIOR PORTION OF THE STOMACH NEAR THE PYLORUS.

The history of the case was as follows:

The patient had been in good health up to her sixteenth year, at which time she had a fever; since then her appetite had been peculiar, craving pepper, etc. At the age of eighteen she had an attack of peritonitis. On the sixteenth of January, 1879, having been called to attend her, the doctor found her in a semi-recumbent position, on the right side, she complained of pain about the diaphragm. Her countenance was anxious; the pulse almost imperceptible; there was no abdominal tenderness. About midnight she had pain in the epigastrium and vomited, but not blood. The diagnosis of diaphragmatic pleurisy was made. After this, at first there was improvement, but she soon grew worse, collapse ensued, with abdominal tenderness and death.

At the post-mortem examination, there were found evidences of peritonitis, both old and recent adhesions of the stomach and liver, perforation of the stomach as shown in the specimen and old pleuritic adhesions.

Dr. Newman presented a specimen of

CARCINOMA OF THE ŒSOPHAGUS.

The principal seat of the disease being near the entrance of the œsophagus into the stomach. The œsophagus was adherent to the spine throughout almost its entire length; the other organs were normal. The following is the history of the patient: Mr. A. M., aged 72, had had hay-fever in August, 1878. In November, 1878, he had an attack of hiccough and indigestion, with regurgitation of food, and loss of appetite. After that for a time he felt better, but on February 7th, 1879, had again complained of dyspeptic symptoms. He masticated well, but steadily lost flesh; the most careful examination failed to discover anything wrong. He continued in this condition with flatulence, acid dyspepsia, and regurgitation of food, steadily losing flesh in spite of treatment. March 1st, rectal alimentation was begun; a consultation was held with Dr. Flint, and a diagnosis of carcinoma reached. A stimulant and light diet was maintained and rectal alimentation kept up, but the patient failed steadily till death. The microscopical examination of the new growth showed all the varieties of large cells which abound in hard cancer.

The interest of this case lies in the almost entire absence of the usual symptoms—only regurgitation, difficulty of swallowing, and gradual failing being present.

Dr. Hetzman said: I wish to draw the attention of the society to certain

ANOMALIES IN THE EXAMINATION OF URINE.

My experience has taught me that in the human spermatozoa in the so-called head there exists a reticulum of living matter, so that I do not

hesitate to call this protoplasm. This explains the tenacity of life of the tail. The motion of the tail can be explained by those of the cilia of ciliated cells, the slight contractions or elongations of the small masses of protoplasm constituting the head, impressing a much greater motion on the long lever constituting the tail. I recently examined a specimen of urine in which there were spermatozoa, the heads of which were so small and which were so motionless that I did not hesitate to pronounce this a case of exhaustion of the living matter of the testicle itself. In a second specimen I found a large quantity of pus and spermatozooids, and I could trace all gradations from normal to pus-cells, with tails. The question arose as to the transition or suppuration of the spermatozooids; it was decided to arise from suppuration of a new growth in one of the seminal vesicles, and this was verified by clinical experience—tenderness in the prostate, &c.

Dr. Howe asked why, if the contraction of living matter in the head could cause motion of the tail, it did not cause a change in the size of the head.

Dr. Heitzman replied that this was not necessarily so, as the shell or layer of living matter on the outside of the head was too thick and firm to permit of change of shape.

In answer to another question, Dr. Heitzman said: "In 1872, I was the first to announce that this reticular structure was the universal law of all protoplasmic material."

Dr. Keyes thought it rather peculiar that, in the second case mentioned by Dr. Heitzman, a pus-cell should have developed from the tail of the spermatozoon of the same size as the head.

Dr. Heitzman explained that the pus-cells were at first solid, then vacuoles were formed, and finally a reticular structure resulted.

Dr. Keyes thought that disease of the seminal vesicles was often overlooked, but that it was very difficult to determine its existence, if only the fact of such a possibility was borne in mind, in the following manner: pressure on the seminal vesicles through the rectum discloses the fact that they are tender and hot; and collecting the first few drops of urine and seeing if they contain a gelatinous mass containing pus and spermatozoa. In order to see which seminal vessel is affected, direct the patient to urinate in order to wash out the urethra, then press first on one then on the other seminal vesicle through the rectum, directing the patient to urinate after pressure on each vesicle, and seeing from which one the pus and spermatozoa come. In such conditions there may be spermatic colic, generally originating in chronic gonorrhœa.

Dr. Howe thought that the painful orgasm and tenderness on pressure were found only in masturbation.

Dr. Sayre nominated Dr. C. E. Quimby for membership and presented the latter's specimen, showing complete bony fusion of the femur and os innominatum, and two smaller pieces of bone, one of which was the head of the femur, and the other the triangular portion of the acetabulum, both of which had been separated at the time of the original injury. The history of this case will appear among the hospital reports, in full, in a future number of the GAZETTE.

Dr. Sell presented a tænia which had been expelled by the patient after taking the following mixture: pumpkin seed 3 xx., sugar, gr. cc, male fern, 3 j, and a strong decoction of the bark of the root of the pomegranate (water 3 x to pomegranate 3 iv). First, ten grains of calomel were administered, the patient was dieted for twenty-four hours, being allowed only slippery elm bark tea, and then he took half of the mixture, but without effect. The next day he took the remaining half and passed a tape worm twenty feet long.

The society then adjourned.

CORRESPONDENCE.

AN IMPORTANT CORRECTION.

To the Editor of THE HOSPITAL GAZETTE:

DEAR SIR—In a recent issue of the GAZETTE I noticed the formulas given for quite a number of ointments compounded with "vaseline" as a base, in which you make use of the Latin term "oleoparaffine," intending to represent "vaseline" thereby. I object to this term on several grounds. "Oleoparaffine" means "paraffine oil," a known article of commerce, which is an irritant, instead of an emollient, and is poisonous and dangerous for medical use. This term would therefore be unsafe to use, if it were correct; but it is *not* so, for "vaseline" is not a paraffine oil, does not contain paraffine, and is obtained from petroleum in a way which will not develop the paraffine formation. The Latin term "gelatum petrolei" exactly defines the true nature of "vaseline," is unobjectionable, and has already been accepted as the proper medical term for this article. Paraffine is obtained by condensing the vapors of petroleum, and then pressing it (the paraffine) from the distillates. It is, consequently, an extract, and of no value medicinally, while the paraffine oils, as I have before said, are dangerous in the extreme. Vaseline, on the contrary, is not an extract, but is the crude oil itself, highly concentrated, and then refined entirely by filtration. It has not been distilled into vapor, and cannot be made from the distillates at all.

By giving this a place in your widely-read journal you will correct an important error, and give information of value to the profession.

Yours, respectfully,

ROBT. A. CHESEBROUGH.

ACTION OF HYPOPHOSPHITES.

To the Editor of THE HOSPITAL GAZETTE:

SIR—I have a lady patient here, aged 42 years, mother of eight children, who has suffered from "chyluria" for the past thirty years.

During that time she has been treated for the complaint by the best known treatment, entirely without avail. She has had several attacks of acute lymphangitis. About two years ago she consulted me, and I found her urine usually two-thirds of chyle. Sometimes it would solidify in the bladder, and produce the most terrible pain and occasion the greatest difficulty in voiding it. I gave her infusion of mangrove bark, as recommended by Roberts; gallic acid, ergot, and opium, as recom-

mended by Bartholow for passive hemorrhages, and a whole host of other medicines, which *might* in any way influence her case. At last I abandoned the curative idea and tried only to build up my patient with tonics and cod-liver oil. She improved somewhat in health by thus meeting the drain, but her trouble was no better. One day I was sent for, and found her limbs very much swollen and some evidence of ascites. I ordered the following diuretic:

Spts. chloroform.....	M xx
Tr. digital.....	M x
Pot. citrat.....	gr xx
Inf. buchu.....	℥ i

M.

To be taken at one draught in some flax tea, three times a day, and as I had just received a box of vitalized hypophosphites from U. S., I gave her a bottle of that as an experimental tonic. With the aid of a bandage the swelling had largely disappeared by next day, and when I made my visit, the patient told me in a great flutter, that her urine was quite clear, and remained so after it had stood for twelve hours. She said she believed "that powder did it." She had noticed after taking two doses that there was a change, and after taking four or five all solidification was gone. I stopped the "powder," and continued the diuretic. Next day she told me the urine was bad again. By this time, however, œdema had all disappeared.

I then commenced the hypophosphites without any other treatment, and again the urine cleared. She took one bottle only and remained well, free from chyluria, and everything else for the past year.

Though there has been no return, this lady insists on taking at least one bottle every six months as a precautionary measure, she having the greatest faith in its power.

I have had another case of a young girl who had suffered only two or three years, and the same treatment cured her.

These are the only cases I have seen, and I do not know of any other on the Island.

But if chyluria depended in these ladies on the *Filaria Sanguinis Hominis*, how did the Hypophosphites effect a cure?

I am, your obedient servant,

JOHN H. ARTON, M. D.

BERMUDA, June 26, 1879.

SELECTIONS FROM JOURNALS.

SOME PECULIARITIES IN THE NIGHT SWEATS OF PHTHISIS.

Rousselot (*Revue Médicale de l'Est*, January 15, 1879) regards the night sweating of phthisis as entirely subordinated to the pyrexia, the variable course and evolution of which it closely follows. He looks upon it as an effort of nature to moderate and reduce the febrile movement by a diversion to the surface. He also maintains that if, when there exists a considerable rise of temperature, there be no nocturnal perspiration, we get a diversion towards the intestinal surface, and diarrhœa appears. Moreover, we often observe a curious alternation of these two phenomena, one appearing when the other dis-

appears, and *vice versa*. Hence he concludes that it is not always right to check the sweatings, especially when they come on at the commencement of phthisis and accompany a rapid evolution of the pulmonary tubercularization with high fever and active pulmonary congestion. That in such case to attack the perspiration is to attack the effect, not the cause, and it is not likely, therefore, to be attended with success. But when abundant sweatings occur together, with a normal flow of urine and frequent diarrhœa, then it is necessary to direct our therapeutic efforts to arrest the excessive drain on the system.—*London Med. Record*, May 15, 1879.

MILK DIET IN HEART DISEASE

M. Sée, in his book on the treatment and diagnosis of heart disease, regards milk as a most powerful diuretic. He does not approve of exclusive milk diet, which, in his opinion, reduces the patient to a state of extreme inanition, but prescribes a mixed milk diet of about two litres and a half of milk per diem added to the patient's usual food. This does not in the least interfere with the diuretic effects of milk. These effects must not be attributed merely to the water contained in the milk, as has been supposed by some authors, because the same quantity of pure water would in no wise produce the same results. It is evident, therefore, that only the sugar and salts possess the diuretic properties, their action being similar to that produced by salts of potash and soda by their osmotic power. These diuretic properties seem to be much more powerful when the milk has not been boiled. It should, therefore, be taken unboiled and fresh from the cow if possible, or, at least, lukewarm, as cold milk does not act in the same way. It seems as if boiling the milk destroyed these properties; nevertheless, it must never be forgotten that some patients can only digest milk when boiled, so that the rule is not without exception.

Another curious point in the action of milk is that it is equally powerful in cases where the cardiac affection is not combined with dropsy. M. Sée has often observed that patients who either no longer suffered from dropsy, or never had suffered from it, were extremely benefited by a mixed milk diet. The action of the heart became much calmer and more regular, and the palpitations disappeared altogether. M. Sée entirely disapproves of whey and grape cures for patients with heart disease.—*London Med. Record*, May 15, 1879.

THE JAUNDICE OF NEW-BORN CHILDREN, AND THE PROPER TIME FOR TYING THE FUNIS.

In an article on the Pathology of the Jaundice of New-born Children, Dr. Porak (*Annales de Gynécologie*, Sept. and Oct. 1878) supports the view that this disorder, in the great majority of cases, is of hæmic origin, and not dependant on any hepatic obstruction, or any peculiar condition of the hepatic circulation. Under the definition of jaundice, the author includes all those cases in which a yellow coloration of the skin arises spontaneously, and does not limit himself, as some authors have done, in the

consideration of the jaundice of the new-born to those cases in which there is a yellow tinge of the conjunctivæ. When the surface of the body is much reddened, and a slightly jaundiced tint of skin is thus rendered difficult to recognize, he finds that the best means of diagnosis is to expel the blood for a moment by firm pressure with the finger upon a limited surface.

In his observations of a large number of children, the author divides cases of jaundice into three degrees. He finds that the affection of the conjunctivæ by itself fails to form a satisfactory distinction, for although their coloration generally coincides with intensity of the general yellow tint of the body, it is quite independent of its extent. The *first degree* of jaundice he calls that in which the chest, the back and the face are alone affected. The tinge generally commences in the face, but sometimes upon the chest, where it is generally deeper than elsewhere. The conjunctivæ always remain unaffected, and the yellow tinge is always very slight. It generally commences towards the end of the first day and has completely disappeared by the third or fourth day.

In the *second degree* the jaundice is more extended: the abdomen, and sometimes the upper segment of the limbs are yellow. The hands and feet, and generally the legs and forearms remain free. The conjunctivæ are generally yellow, but the author has observed several cases of very extensive jaundice in which they remained white. Jaundice of the second degree generally lasts from three to six days, and has completely disappeared by the sixth or seventh day. In the *third degree* the jaundice is general, and the author distinguishes it from the second degree by the coloration of the hands and feet. The author has never found the urine to contain pigment, except in a few instances in which the tinge of the skin was not only much deeper than usual, but acquired a greenish tint. In these the jaundice was of much greater duration, and commencing towards the end of the first day, had often not disappeared by the ninth or tenth day. The author considers them to have a different pathology, and to depend on hepatic obstruction, not, like the authors, on a hæmic cause.

Out of 245 children, the author found only 50, or 20.16 per cent., who had no jaundice; 34, or 13.71 per cent., had jaundice of the first degree; 91, or 36.69 per cent., had the second degree, and 73, or 29.50 per cent., had the third degree. No special digestive trouble was found to be associated with the jaundice, and absence of bile in the feces was never observed. As to the condition of the urine, the author finds, that while the foetal urine is pale and clear, that passed for the first few days after birth is rather deeply colored, and often deposits a sediment. After the third day, the urine generally becomes clear and more abundant. In the case of jaundice, the author did not observe any deviation from these changes, except in the three instances only out of 248. In these it contained bile-pigments, and he regards them as having a different pathology. The author accepts the distinction made by M. Gubler as to the condition of the urine in obstructive jaundice, and that due to a changed blood-pigment,

which he calls hæmaphein—namely, that in the former case the urine is greenish-yellow, stains linen, and gives a play of colors (green, blue, violet, red) with nitric acid, while in the latter case it is pale yellow with a brownish tinge, and with nitric acid gives only a brownish-red tint. In most cases of jaundice of new-born children, even of the third degree, he finds that the careful addition of nitric acid in a test-tube brings out only an extremely thin reddish diaphragm, but in a few instances a much broader dark band was produced above this, showing some pigment not usually present in the urine, which he thinks may be hæmaphein. Of the three jaundiced children whose urine contained bile-pigment, one died in the hospital, and the other two were lost sight of when they appeared to be in a hopeless state. In all three of these cases the motions were strongly tinged with green, showing that there was no obliteration of the biliary ducts.

As to the pathogeny of the disorder, the author first discusses the theory that it depends upon local or general cutaneous congestion, escape of blood from the vessels, and changes in its color like those which occur in an ecchymosis. One or other form of this doctrine has been accepted by Breschet, Billard, Valleix, Andral, Weber, West, Zeissl, and others. To this the author objects that, if it were true, the changes of tint ought to be observed which occur in an ecchymosis, but are absent in the jaundice of the new-born; and further, that it fails to explain the cases in which the conjunctivæ are affected, and those in which the jaundice is limited to the trunk and face. Against the view that the jaundice is obstructive, due to retention of meconium or catarrh of biliary ducts, according to the latter opinion of Virchow, he contends that the character of the urine, so rarely containing any bile-pigment, shows that obstructive jaundice is exceptional in the new-born. Against the view of Frerichs that the cause is a relative excess of pressure in the bile-ducts, due to sudden diminution of pressure in the portal vein, and consequent reabsorption of bile, he argues that numerous cases of pathological obliteration of the portal vein have occurred, and that jaundice has not been the consequence, while the same argument from the state of the urine applies to this as to the last theory.

In favor of the view that the jaundice is of hæmic origin, the author cites the anatomical evidence of Virchow (who at first maintained the hæmic theory, though he has since abandoned it), with reference to the urinary infarctus of new-born children. That author found these small masses in the kidneys to contain a dark pigment, which gave with nitric acid a reaction different from that of bile-pigment, while the same pigment frequently infiltrated the epithelial cells of the kidneys, and their nuclei. Neumann also, in seven cases of jaundiced children who died within the first week, found similar infarctus in the kidney, and also found in various organs both within and without the vessels, small acicular dark-red crystals (hæmatoidin or bilifulvin). In children not jaundiced, who died within the same period, these crystals were not found. Krebs and Orth have also found similar crystals in cases of jaundice of new-born children. Similar crystals are found in macerated fœtuses, whose blood has undergone cadaveric

change, and stained their tissues, forming the fœtus sanguinolentus of the Germans. The chemical distinction between hæmatoidin and bilifulin being still undetermined, the author considers that these crystals must be ascribed to blood-pigment. From observations by Lépine and Hayem, he infers that great changes take place in the first few days of life both in the number and size of blood corpuscles, from which must be inferred a rapid evolution and coincident destruction of them, the pigment resulting from the latter of which processes has to be partly excreted by the kidneys. To anomalies in this process, probably due in part to a deficiency of hepatic activity, the author attributes the production of the hypothetic hæmaphéin, a derivative of the imperfect elaboration of hæmoglobin, and the presence of this in the liquor sanguinis he considers to be the cause of the hæmic form of jaundice in new-born children. With this view agrees the fact that children are more liable to jaundice who are enfeebled, or whose nutrition is deficient, as children in foundling hospitals, twins, or those born prematurely.

The author has also made a number of observations on the progress in weight in infants, to determine the advantage or otherwise of adopting the plan proposed by Budin of not tying the funis until some minutes after birth, when it has ceased to pulsate, in order that the infant may have the benefit of the additional amount of blood which, by this means, is withdrawn from the placenta (see *Obstetrical Journal*, vol. iv. p. 194). He finds that when the funis has been tied late, the children do not appear to thrive better than when the old plan has been followed, and that in the former case there is a greater loss of weight during the first day or two. He further finds that when the funis has been tied late, the children are notably more subject to jaundice, and he considers that this effect of an additional quantity of blood in the circulation is a further evidence in favor of the hæmic origin of the disorder.—*Obstetrical Journal of Great Britain*, May, 1879.

CASE OF WRYNECK SUCCESSFULLY TREATED BY DIVISION OF THE SPINAL ACCESSORY NERVE, AFTER FAILURE OF STRETCHING.

The following interesting case occurred under the care of Professor Annandale at the Royal Infirmary, Edinburgh:

A young woman, aged twenty-four, was admitted into the surgical wards on February 7, 1878. She had passed the three months immediately preceding this date in the medical wards under the care of Professor Grainger Stewart, where trial had been made of all those internal remedies likely to benefit her condition, but without any permanent improvement. The patient was employed in a power-loom factory, where, in order to follow the movements of a shuttle, it was necessary for her to keep continually turning her head from side to side, and as the handle of the machine at which she worked was at her left side, she had occasion to turn most frequently in that direction. After a spell of unusu-

ally hard work the patient began to experience a constant sensation of discomfort and uneasiness in the neck, accompanied by occasional twitching movements. The head seemed to be drawn somewhat towards the left side, and on moving it the patient found that additional effort was required to subdue the jerking movements, which tended to return it to its former position. The rotation of the head towards the left soon became more marked, and the spasmodic movements increased in violence and frequency.

On admission it was observed that, while at rest, the head assumed the position of rotation to the left, and was depressed towards the left shoulder, which was elevated to meet it. She was generally to be seen sitting with her chin supported on her left hand, looking over her left shoulder. Any movement of the head from this position at once excited the spasmodic movements. These consisted in a series of jerks, becoming more violent as they lasted, by which the head was brought round to the left from any position of rotation towards the right. Though much relief was obtained by avoiding bodily or mental effort, yet it was only during sleep that complete quiet was obtained.

The difficulty of determining the muscles primarily affected was unusually great, yet by observing during the attack the superficial muscles thrown into contraction, the position assumed by the head, and the situation to which the pain was referred, it seemed probable that the following were the groups of muscles chiefly involved: First, the left obliquus inferior, rectus capitis posticus major, and splenius, which rotate the head towards the left; and, secondly, the left sterno-mastoid and trapezius, which depress the head towards the left shoulder and rotate it to the right. The clonic spasms appeared to be due to the alternating action of these two groups of muscles. The case seemed to be one in which overwork had induced a state of, as had been designated by Dr. Poore, "chronic fatigue or irritable weakness," in at least two opposing groups of muscles, those most used by the patient, as a result of which they had become liable to spasmodic action. The most certain means of inducing the clonic spasms was any attempt to perform the habitual movement—in other words, to use either group of affected muscles.

The explanation of the other marked feature of the disease—the permanent deformity—follows from this; it was assumed because by it the greatest possible amount of relaxation of both groups of muscles at one time was obtained: the rotation of the head to the left relaxed the first, and the approximation of the head to the shoulder the second group. The adoption of this position was an attempt to abstain from using either group of muscles, and so to avoid the action of the most powerful cause of the spasms.

All this naturally indicated the necessity for more complete rest, such as might be obtained by paralyzing one group of muscles. In order to effect this the following operation was performed: On February 10th Professor Annandale made an incision from below the tip of the mastoid process on the left side, extending downwards for about three inches along the anterior border of

the sterno-mastoid muscle. The border of the muscle was cleared, and some of its fibres divided transversely and turned aside. The left spinal accessory nerve was exposed and stretched, and, in case section of it should afterwards be deemed advisable, a silk ligature was applied loosely round it. The wound was then closed, the ends of the ligature being brought out at its lower angle.

No beneficial change whatever followed this procedure; accordingly, on the following day, Professor Annandale removed the stitches from the wound, and by means of the silk ligature brought the nerve within reach, *divided* it, and after separating the divided ends, removed the ligature and closed the wound. A few hours after section of the nerve had been accomplished, when the patient was able to sit up, it was found that she could move her head slowly round to the right, and could keep her face looking steadily forwards. During the healing of the wound she continued to acquire steadiness and freedom of movement of the head up to the time of her dismissal, on the 16th of March.

The patient was seen in March, 1879, a year after the operation, when she was found to be free from any symptoms of the disease from which she had formerly suffered. The sterno-mastoid and trapezius muscles on the left side were then as well developed as on the right, and the appearance and movements of the neck and shoulders were absolutely normal. In the interval she had resumed her employment, and had only left it on account of her marriage—a circumstance in her social history which testifies to the completeness of the cure.

Three other cases of section of the spinal accessory nerve for spasmodic wry-neck are recorded. One of these is the case of Mr. Rivington, of which no particulars have been published.* The others, performed by Mr. De Morgan, seem to support the explanation which has been offered of the present case. One was identical with the case now described, but on the opposite side. In it the right spinal accessory nerve was divided with a successful result.† In the other the head was rotated to the right also; here the left spinal accessory nerve was divided without curing the disease.‡—*Lancet*, April 19, 1879.

TREATMENT OF IMPERMEABLE STRICTURE OF THE URETHRA.

At a late meeting of the Clinical Society of London (*Lancet*, May 10, 1879), Mr. Hulke read notes of a case of retention of urine, caused by impermeable urethral stricture, treated by tapping the bladder above the pubes, and later by external section of the stricture, a catheter passed through the bladder and a staff per penem, as far as the obstruction, being used as guides. The patient, 40 years of age, was admitted into the Middlesex Hospital on November 29th, with retention of twelve hours' standing, the bladder being distended to the umbilicus. He had been treated for stricture twelve years previously. It being found impossible to pass a catheter, Mr.

Hulke emptied the bladder by aspiration above the pubes. Twenty-seven hours later, no urine having been passed, a trocar was passed into the bladder above the pubes, and a canula left *in situ*; and on the third day this was substituted for a gum-elastic catheter. During the next few weeks the patient had two attacks of pleurisy. Several unsuccessful attempts were made to pass a catheter per penem, and on January 3d, Mr. Hulke divided the stricture from the perineum, a staff passed through urethra up to the stricture, and a catheter through the prostatic urethra from the bladder down to it being used as guides. The tough fibrous tissue was divided, and the catheter being withdrawn, the staff was guided into the bladder, and, lastly, another catheter passed over the staff into the viscus. The suprapubic aperture was allowed to close, and the case did well. Mr. Hulke remarked that the subrapubic tapping was selected in preference to Hunter's and Cock's method, because of the deviation of the urethra to the left. Not that this operation (first suggested by Hunter, and then practiced by Dittel) was intended to supersede puncture through the rectum, but that it was suitable for exceptional cases, such as this. It was not more liable to be followed by urinary extravasation, which did not occur in any of Dittel's cases, nor had Mr. Hulke found it to take place; whilst a provincial surgeon had made the same statement, based on an experience of seventeen cases. It admitted further of antiseptic precautions, and had the advantage of allowing the course of the urethra before and behind the stricture to be made out if division from the perineum became necessary. He had some little difficulty in finding the orifice of the prostatic urethra. The suggestion to use a catheter passed through the external wound as a guide to perineal section is made in a foot-note appended to the remarks made by Hunter in the collected edition of his writings.

Mr. Marsh said that in the *Lancet* for 1838, Mr. Hursley records a case of impermeable stricture where he performed suprapubic tapping, and, passing an instrument downwards through the stricture, managed by its means to draw upwards into the bladder a catheter passed per penem. Mr. Hulke's paper was very valuable as affording another means for treating a very difficult class of cases.—*Mon. Abstract*.

REMARKS ON THE PRODUCTION OF CYSTITIS BY CONTAGION THROUGH THE USE OF INSTRUMENTS.

Sir Henry Thompson, in a recent communication to the *British Medical Journal* (May 10, 1879), says: I have long suspected that cystitis is capable of being propagated by the direct transference of inflammatory products from the bladder of one patient to that of another. All are sufficiently familiar with the fact that purulent matter from the vagina, and probably from the uterus also, produces inflammation of the male urethra, and that conjunctivitis may be caused by contact with pus from either source; and I believe it is quite unnecessary to imagine that any specific quality attaches to purulent matter produced in these localities, rendering it more than ordinarily virulent and contagious.

* *British Medical Journal*, February 8, 1879.

† *British and Foreign Medico-Chirurgical Review*, July, 1866.

‡ *The Lancet*, August 3, 1867.

Certainly no proof can be adduced that such quality exists. A decision on this point, however, does not necessarily affect the question whether cystitis may be originated or not by contagion.

Every one knows that the operation of sounding the bladder—it may be for stone or for tumor, etc.,—is sometimes, although rarely, followed by an attack of inflammation more or less severe. Such an occurrence is in some circumstances not unnatural. A delicate organ is mechanically disturbed, and it force be employed in the process, some inflammation of the mucous membrane is a not improbable result. Hence the extreme importance of adopting a method and instruments which shall accomplish the object in view with the smallest degree of distension and movement, and also of forbearing to make such an exploration, except in circumstances which manifestly indicate its necessity. In my experience of such cases of this kind as have fallen under my observation during many years I have remarked that the inflammatory attacks which follow sounding occur in two modes distinct from each other. Thus, in some instances, the patient has a shiver, occurring within three to four hours of the time of the examination; soon afterwards the urine is passed too frequently and with pain, becomes cloudy, and some general fever sets in. In such, the cause of inflammation is clearly a mechanical one, and if the patient be healthy, it soon subsides with rest and treatment. But, in a few other instances, no disturbance occurs until the lapse of forty to fifty hours, or thereabout, after the sounding. The subject of the examination has been in all respects well since the sounding took place, and felt, if anything, only slight soreness during the first few hours following the operation. After the interval named he experiences a little undue frequency of micturition, loses appetite, is chilly or has a shiver, and by degrees symptoms of cystitis appear and continue a marked course for a few days, with varying persistence, according to circumstances. Usually the patient attributes his condition "to some cold he must have caught the day after the examination," and by no means attributes his troubles to the instrument, as he infallibly does in the circumstances first described.

Why, in certain circumstances, these phenomena should occur so long after the provocation which must have given rise to them has, as I have already intimated, frequently afforded me an interesting subject of speculation. But, a case has recently occurred which I have been enabled to watch closely, and which seems to throw light on the nature of these examples of the second kind. I shall give the chief particulars in detail:

A medical man, under sixty years of age, having had occasion, as he thought, to pass for himself a silver catheter (No. 10) daily, had a new one made. There was a peculiarity in its construction, the lower or curved portion, about two inches and a half in length, being separate and attached by a screw to the shaft. Such catheters were frequently made formerly for the purpose of packing in a surgical pocket-case. He passed this daily with great ease during some weeks, on no occasion producing irritation. One day—and this was the only occasion on which he used the catheter for another person—he introduced it into the bladder of a patient whose

urine was highly muco-purulent, and who was, indeed, suffering with severe cystitis. He believes that immediately after using the catheter he washed it in the ordinary way. Subsequently on that day he employed it as usual for himself; and it is somewhat curious that he did not use it the next day—not because he felt any irritation, but, on the contrary, because he was arriving at the conclusion that the instrument was no longer necessary. The next day but one after his last employment of the catheter, about forty-four hours after, he felt chilly, and micturition was slightly painful. Next day he had some fever, no rigor, but increase of temperature; his urine was cloudy and passed frequently. The day after he was confined to bed; the temperature varied between 102° and 103° for a few days, and the urine was loaded with muco-purulent jelly-like deposit during one or two days. After more than a week's confinement to his room he gradually improved, and soon perfectly recovered, having in his urine now no trace of the attack. He empties his bladder perfectly, and in relation to the urinary system has nothing whatever to complain of.

The circumstances of this case will go far, I think, to suggest the strong probability that this attack of cystitis was caused by the transference of infectious matter, by means of the catheter, from the patient for whom it was once used to the subject of our case. I can scarcely doubt that the exceptional formation of the instrument, the screw attachments, which, on examination, moreover, appeared to be a little loose, offered a chink, in which matter lodged, especially at this lower part, was not detached for cleaning—the eyes of the catheter serving that purpose, as in the ordinary instrument.

It may very naturally be urged: if inflammation be so easily produced through contagion by passing instruments not scrupulously rendered clean, so numerous and varied as these are, and so frequently used, how is it that cystitis is not a very frequent result—for this certainly is not—of ordinary catheterism?

I think the reason is not far distant, and that it may be found in the action of the catheter itself. The moment the instrument reaches the bladder, the urine rushes through the orifice, and carries off in its current any minute particles which may be adherent to its extremity. In bougies, no opening for the lodgment of adventitious matters exists, and any risk of contagion by their use must be considerably less. Besides, the action of the urethra itself, clinging to the instrument and sweeping off, almost at the external meatus, as it does by that action, most of the lubricating material, is a sort of defence to the internal passages from danger. On the other hand, in examining a bladder, the sound is rarely used as a catheter, and although it has often an eye in its extremity, the handle is closed, and urine seldom passes through it. The various movements of a sound in searching the bladder are calculated to detach, within its cavity, foreign particles, if any such exist, in or about the eye.

The practical question, how to prevent any transference of matter to the bladder and urethra, in employing instruments of any and every kind, presses for solution. It is one of extreme importance to all con-

cerned, and the occurrence of an accident of the kind described, however rare it may be, is one the bare possibility of which cannot be contemplated without extreme repugnance.

After some consideration and some experimental trials, I think the following recommendations will render contagion by instruments impossible.

Firstly—All metal instruments—catheters, sounds, and lithotrites—after use, at any rate in cases of muco-purulent urine, should be plunged for a minute or two into boiling water, to which either a little common soda or a little carbolic acid has been added. If the boiling point of water be not considered absolutely sufficient, a strong solution of chloride of zinc in water may be used. At the strength of twelve per cent. solution, the boiling point is 220° Fahr., or eight above that of boiling water. For some years past, as advised in the last edition of my lectures, I have always placed all gum and other catheters and bougies in a bath of weak carbolic acid immediately after use.

Secondly—I have more recently—that is, since the occurrence described—added a solution of carbolic acid to the oil used for the lubrication of instruments. Oil being the remedial agent for the caustic effects of carbolic acid, there is no danger in applying to the urethra a comparatively strong solution of the acid in oil, since no irritating effect whatever is produced, and the disinfectant influence is unimpaired.

For the last two months, I have used the following formula, and can, therefore, guarantee that it is absolutely unirritating: \mathcal{R} Acidi carbolici med. gr. xii; olei olivæ \mathfrak{z} i.

A free use of this as a lubricant to all instruments before using will, I believe, insure, at all events in combination with the modes of cleaning just described, safety from the occurrence of any contagion by means of instrumental treatment.—*Mon Abstract.*

HOSPITAL FORMULARY.

PHARMACOPŒIA OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

MISTURA.

7. *Mistura Ferri et Acidi Phosphorici.*

\mathcal{R} Tinct. Ferri Chlor.
Acidi Phosphorici Dil.aa \mathfrak{f} \mathfrak{z} j
Syrupi. \mathfrak{f} \mathfrak{z} vj

M.

Dose, a teaspoonful.

8. *Mistura Ferri Acetata.*

\mathcal{R} Tr. Ferri Chlor. m xx
Acidi Acetici Dil. m xx
Liq. Ammon. Acet. q. s. ad \mathfrak{f} \mathfrak{z} j

M.

Dose, two to four teaspoonsful.

9. *Mistura Ferri Acida.*

\mathcal{R} Ferri Sulphatis. gr. ij
Magnesii Sulphatis. \mathfrak{z} iss
Acidi Sulphurici Dil. m xv
Infusi Quassiae. q. s. ad \mathfrak{f} \mathfrak{z} j

M.

Dose, a tablespoonful.

10. *Mistura Ferri Aperiens.*

\mathcal{R} Ferri Sulphatis. gr. ij
Magnesii Sulphatis. \mathfrak{z} ij
Aquæ. \mathfrak{f} \mathfrak{z} j

M.

Dose, a tablespoonful.

11. *Mistura Potassii Iodidi Amara.*

\mathcal{R} Potassii Iodidi. \mathfrak{z} j
Tr. Quassiae.
Syrupi. aa \mathfrak{f} \mathfrak{z} ss

M.

Dose, one teaspoonful.

12. *Mistura Potassii Iodidi.*

\mathcal{R} Potassii Iodidi. gr. xx
Aquæ Cinnamomi. \mathfrak{f} \mathfrak{z} j

M.

Dose, two to four teaspoonsful.

13. *Mistura Potassii Iodidi Composita.*

\mathcal{R} Potassii Iodidi. gr. xx
Hydrargyri Chlor. Corrosivi. gr. $\frac{1}{2}$
Aquæ Cinnamomi. \mathfrak{f} \mathfrak{z} j

M.

Dose, two to four teaspoonsful.

14. *Mistura Potassii Bromidi.*

\mathcal{R} Potassii Bromidi. \mathfrak{z} iiss
Aquæ Cinnamomi. \mathfrak{f} \mathfrak{z} j

M.

Dose, one to two teaspoonsful.

NEWS ITEMS AND NOTES.

Dr. Brucke, Professor of Physiology, has been elected Rector Magnificus of the University of Vienna. He is the first Rector since the foundation of the University who has not been a Roman Catholic. He is a Protestant.

On the occasion of Professor von Langenbeck resuming his clinical duties on June 16th, after recovery from a severe illness, he received a hearty welcome from his colleagues and pupils. The corridors of the clinic, his receiving room, and the operating theatre, were gaily decorated. In returning thanks to an address by the senior assistant, he said that it had been most painful to him to feel unable to open his clinical course with his usual punctuality.

A Festival in honor of the celebrated pathologist Rokitsansky will be held at his birthplace, Königgrätz in Bohemia, on the 3d of August, by the town authorities in conjunction with the Bohemian Medical Association. They will assemble in the town hall, and thence proceed to the house in which he was born, where a memorial tablet will be unveiled, and an oration delivered by Professor Albert of Innsbruck.

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LECTURES.

SYPHILITIC SORE THROAT.

A Lecture Delivered at Jefferson Medical College.

BY

J. SOLIS COHEN, M.D.,

Lecture on Laryngoscopy in the College and on Clinical Medicine in the Hospital.

(Reported for THE HOSPITAL GAZETTE.)

By the expression syphilitic sore throat, reference is usually had to a secondary or tertiary manifestation of the disease, although it occurs occasionally as a primary affection. We find chancres on the lips, the tongue, the cheeks, the palate, the tonsils, occasionally on the posterior wall of the pharynx; and in one instance at least, a chancre has been reported as detected on the lingual surface of the epiglottis.

In some cases the disease has been inherited, but it is very often inoculated. This inoculation may even take place through the medium of a kiss or a bite, etc. I remember one case in particular, that of a female opera singer, who had an enemy in the troupe. This enemy was affected with syphilis and had her revenge in kissing my patient upon her lip, which was chapped, and thus gave her the disease, and she died sometime afterwards from cerebral syphilis and paralysis.

Occasionally the disease is communicated by the use of spoons or tumblers which have been touched to syphilitic sores on the lips, or in the mouth. Now and then we hear of a case of inoculation in the process of glass blowing; for if one of the glass blowers happens to have a syphilitic sore on his lips, the disease may very readily be carried by the mouthpiece to another workman who happens to have a fissure on one of his lips. In the same way the disease may be transmitted through the medium of a tobacco pipe. I have heard of cases in which it was carried from person to person through the medium of a cigar. Some cigar makers, in fastening the end of the leaf are accustomed to moisten it with saliva. Now, if one of these individuals has a syphilitic sore in his mouth, it is very easy to see how the poison might be conveyed. In still other cases, infection has been accomplished through the medium of the mouthpiece of a trumpet. I have seen cases where the same result was accomplished by the incautious use of the Eustachian catheter. The passage of this instrument is very likely to produce an abrasion, even though none exists already; and if the catheter employed has been previously passed into the Eustachian tube of a syphilitic patient, it is exceedingly likely to carry off some of the poison on its surface. It is for this reason that you should all be very careful in the promiscuous employment of such instruments, or rather, if possible, you should

never use an instrument which has touched a syphilitic surface a second time. If you cannot afford to buy new instruments, you should, at least, thoroughly clean the old ones, and then dip them in alcohol and then burn off the alcohol, or else immerse them in a ten per cent. solution of carbolic acid and allow them to remain immersed for several hours.

In using the laryngoscopic mirror you have to heat it before introducing it, as you know. Now, some teachers tell you to test the heat of the glass on your cheek, but I say, never touch it to the cheek, for you might thus inoculate yourself with specific disease if your patient happened to have a sore on any of the mucous surfaces of the mouth, and there happened to be the merest scratch on your own cheek. If you are obliged to test its warmth, do so on the back of your hand, or at least be careful to touch the mirror to some unabraded surface.

The distinction between secondary and tertiary sore throat of syphilitic origin is not so well made out as is the distinction between the same stages of the disease as they affect other parts of the body. However, you may accept this statement as valuable in point of diagnosis. *If the sore throat appears a few weeks or a few months after infection it is of secondary grade, if not for several years, it is tertiary.* The element of time is of great importance, since the characteristic appearances of secondary and tertiary syphilitic sore throat are much alike.

I do not think that I know of anything which more resembles the appearance of a syphilitic disease in the throat, than that of an eruption on the skin which has been poulticed, *i. e.*, the manifestations of the disease in the throat are very similar to its appearances elsewhere, the difference of moisture and character of epithelium being taken into consideration.

We know that the throat is often affected with syphilitic disease, but we do not know why it is so affected. Infants as well as adults are affected with syphilitic sore throat. The throat has great proclivity to disease of various kinds. It is greatly exposed to vicissitudes of atmosphere, being continuously used in breathing, and at very frequent intervals, in swallowing. If there is no special reason for the origin of syphilitic sore throat, we, at least, say that the conditions which cause catarrh to settle in the throat locate syphilis there also.

Coming to a consideration of the symptoms of secondary syphilitic sore throat, we find that it first manifests itself by an erythematous congestion of the parts; a hyperæmia, usually most plainly marked on the soft palate. This does not differ in the least from the erythema of scarlet fever, except that the history is likely to be different, and that there is usually an attendant skin eruption in syphilis. There is no distinct line of demarcation to this syphilitic erythema, but it fades off imperceptibly into the healthy tissues around it.

One peculiarity this eruption of erythema does, however, possess, and that is a symmetrical appearance of the parts. The inflammation is not only bilateral, *i. e.*, not only involves both sides of the soft palate, but the separate patches are much of the same shape, the inflammation is not a diffuse in-

flammation. The reason of this is entirely anatomical. This virus of the disease is of course carried along in the blood current, and, therefore, lodges at parts of the palate where arteries ramify, and the ramification of these arteries is the same on both sides of the palate. This symmetry of the inflammatory action will very often clear up any doubt which we may entertain with regard to the nature of the case.

The inflammation, as I have just said, begins on the palate and then it goes down on the anterior palatine folds, or, less frequently extends along the hard palate. Occasionally the disease starts on the posterior part of the palate, and so we have no evidence of its existence, unless we make a rhinoscopic examination. To do this you must pass a small looking glass (laryngoscopic or rhinoscopic mirror) behind the palate and thus illuminate its posterior surface. This is one of the reasons why syphilitic sore throat may progress with such seeming rapidity in some cases. It begins posteriorly in the palate and so escapes notice entirely, until it is under very great headway.

After the erythema has existed for a longer, or shorter time, elevations appear at some points over the diseased surface. This is due to the glands of the mucous membrane being pushed forward, and the epithelium on the mucous membrane's external surface. This gives rise to the so-called "mucous patch," similar to the appearance caused by the application of nitrate of silver to the mucous membrane. This tumefaction is not always present, particularly if the epithelial cells are not distended with serum.

The "mucous patch" is very much like the so called "milky patches of smokers." If you pull the cheek of an inveterate smoker to one side and examine the inside of it carefully, you will find an opalescence on the mucous membrane, which is produced by the smoke. If, therefore, in examining a case, you see a "patch" where it might be produced by smoke, you ought to be very slow in making your diagnosis.

After a while the tumefied points on the mucous membrane give way, and becoming disorganized, form ulcers. You will very often, at this stage, find an ulcer at the root of the uvula. The patient loses control of the muscles of the palate owing to the infiltration of products between the bundles of fibres of the muscles. The voice acquires a peculiar tone—due to excess of air passing out through the nose—so that there is a nasal twang about it, as is the case when the palate is insufficient, or when its muscles are paralyzed.

Secondary syphilitic sore throat is very rarely located upon the pharyngeal mucous membrane. It may, however, affect the root of the tongue and the interior of the larynx. The syphilitic sore throat thus becomes a syphilitic laryngitis, and this is characterized by the same signs as an ordinary laryngitis, and has no peculiar symptoms. In such a case the history and the presence or absence of skin eruption is all we have to guide us.

Tertiary syphilitic sore throat usually appears some years after the primary affection, or else the sore throat incurred may run from the secondary into a tertiary stage. In such an instance as this we should have a mixture of secondary and tertiary mani-

festations. Tertiary syphilis rarely appears before the third year from the date of primary inoculation.

The tertiary form of syphilitic sore throat almost always manifests itself by gummatous deposits—syphilomata—masses of material of a regular ovoidal form, varying in size from that of a pin-head to that of a large pea. This mass finally works itself up to the surface and ulcerates through it. The ulcer thus produced is the characteristic syphilitic ulcer, excavated or gnawed in appearance, of crescentic form and with sharp edges.

This grade of the disease also, as well as the secondary, starts up occasionally on the posterior part of the palate, and if it is not discovered and treated promptly, it may perforate the palate in from twenty-four to forty-eight hours. It occasionally requires the greatest amount of care to prevent perforation. This syphilitic ulcer has a tendency to extend either superficially or down into the deep fascia.

There are usually the same symptoms in tertiary as in secondary syphilitic sore throat, except that the tertiary variety is more apt to be unilateral. It sometimes follows a peculiar course and may proceed at once from the palate to the larynx, and destroy the epiglottis. The epiglottis may be destroyed without interfering with deglutition to any very great extent, for the stump which remains by the contraction of its muscles may form a sort of sphincter and so prevent the food from passing down the wind-pipe. Or, on the other hand, the disease may pass up into the posterior nares, and thence to the conjunctival membrane, and finally enter either the frontal or maxillary sinus and eat away submucous tissue, periosteum and bone itself. Again, it may affect the sphenoid and ethmoid cells and bring on meningitis or cerebritis. Or, still again it may commence in the pharynx, run up the Eustachian tube to the tympanum and so reach the brain. An abscess may form and discharge in the tympanum. There are instances upon record in which the disease has even gotten as far as the spine, producing caries and necrosis of the vertebræ and paralysis of the upper limbs.

Any and every part of the larynx may be affected. The mucous membrane, the submucous tissue, the nerves, the blood vessels, the chondrium, and the perichondrium. Sometimes the cartilages are affected primarily and undergo inflammation and supuration, when abscesses are formed and break, either through the mucous membrane and so into the wind-pipe, or through the skin externally.

When the arytenoid cartilage is attacked it is often destroyed and discharged, leaving a sort of pocket behind. In like manner the cricoid cartilage may be surrounded and discharged. During the exfoliation of this cartilage, if the sequestrum is thrown out underneath the vocal cords, it is of course a foreign body and subjects the patient to all the dangers attending the presence of a foreign body below the glottis.

Again, tertiary syphilitic sore throat may reveal itself in œdema of the submucous tissues, producing difficulty of breathing if internal, and difficulty of swallowing if external, or the disease may affect the trachea and bring on suffocation, by causing exfoliation of some of the rings.

There is still another condition when the infiltration occurs in the interior of the larynx and encroaches upon its calibre, producing stenosis, which may be permanent, thus necessitating the performance of tracheotomy, and the use of a tube for the rest of the patient's life.

A perforating ulcer may detach part of the uvula, or soft palate, and the two detached portions of flesh may meet and unite permanently, or there may be adherence of a detached piece of the palatine fascia to the tongue, thus causing stenosis of the pharynx; or the palate may be entirely glued to the pharynx, so that the patient is unable to breathe or blow through his nose, while his voice has a non-resonant or dead-like sound. When there is an adhesion between the palatine arches and the tongue, the diet must necessarily be confined entirely to fluids.

When we come to a consideration of the syphilitic sore throat of infants, we find it hard to discover how much of the condition is hereditary and how much due to primary infection.

As a general thing the disease is hereditary in infants, though they are sometimes infected by the syphilitic secretions of the vagina. Congenital syphilitic coryza is undoubtedly due occasionally to contact with syphilitic sores during delivery. Some authorities hold that the disease, when acquired by heredity, is always ushered in by running of a serous, purulent, and finally of sanguineous matters from the nose, which matters finally become dry and prevent the child from sucking at the breast, and render it cross and fretful.

It is a well known fact that the disease may be contracted from syphilitic sores on the breast of a wet-nurse, while some hold that the milk of a syphilitic nurse is capable of carrying infection into the system of the baby.

The initial lesion in the infant is generally, as in the adult, a mucous patch, which may be found in the throat, or in the nasal passages, or the angles of the mouth. This mucous patch may leave behind it an indelible cicatrix. It was Trousseau who first explained the origin of these cicatrices as found in the adult at the angles of the mouth and nose.

Speaking of cicatrices, I ought to call your attention to the peculiar cicatrices which syphilitic disease in the throat leaves behind it. These cicatrices are very characteristic and are often valuable indices, when discovered in the course of laryngoscopic examination, of the existence of constitutional venereal disease. These cicatrices are stellate in shape and bluish in color when new, gradually shading into white with age.

In one case I found these stellate cicatrices in the palate as results of an injury sustained from a pipe stem being driven against the palate and wounding it.

Scrofulous sore throat is generally hereditary. Perhaps the worst cases of syphilitic sore throat are where it is associated with the scrofulous diathesis inherited from the parents.

Syphilitic sores in the nose of infants often lead to perforation of the septum, the perforation being sometimes so large that the little finger can, with ease, be inserted through it.

The treatment of syphilis in the throat is the same

as that for syphilis in any other part of the body, namely, mercurialization in the secondary stages, iodization in the tertiary. It is very important to keep the parts thoroughly cleansed. If there is local ulceration the parts should be syringed, or cleansed with a brush, or spray douche. The water used should contain some of the chlorate or permanganate of potassium, or some carbolic acid. For my part, unless ulceration has set in, I do not believe that any medication to the throat is necessary, and that the local disease will yield entirely to the constitutional treatment. Sometimes I employ a twenty grain to the ounce solution of nitrate of silver, or sulphate of copper. In making these applications be sure to cover the whole patch, so that the diseased tissue should be completely destroyed.

Where you wish to make a good local application, use instead of a camel's hair brush a broad or flat paint brush, so that one sweep of the brush will cover a space half an inch wide. In this way the whole diseased surface may be washed by one motion.

When you wish to use the lunar caustic itself locally, the best form is that in the shape of a lead pencil, which you sharpen just like any other pencil. In this way you can confine the application to the desired space without any danger of its touching healthy tissue. If you wish to apply this pencil to a lateral surface, as, for example, to the side of the palate all you have to do is to cut away the wood from the side of the pencil, so as to leave a small piece of the caustic exposed laterally. A stronger application still than the silver is to be found in chromic acid.

In the treatment of the tertiary form of syphilitic sore throat, you should use the iodide of potassium, together with small doses of the bichloride of mercury, or its equivalent in some other preparation. When perforation is threatened, the iodide of potassium should be given in doses of from thirty to ninety grains, every three or six hours, for thirty-six hours, if necessary, or until a change for the better takes place. In this way you may cut the perforation short, and completely stop the phagadenic process.

In giving large doses of the iodide of potassium, you should always bear in mind that the drug may give rise to œdema of the larynx. Therefore, make it a rule never to let three doses pass without seeing the patient and examining the larynx. Œdema of the larynx has been caused in two cases in my own practice by large doses of the iodide.

As soon as the patient gets thoroughly under the influence of this medicine you may return to the ordinary dose. Sometimes you cannot prevent the occurrence of perforation, or it may have taken place before your arrival, and you find the uvula, perhaps, hanging to its base by only a thin shred of flesh. Or it may be that a portion of the palatine fold has been separated and is hanging suspended over the opening of the wind-pipe and œsophagus. In such cases, unless there is great danger of its dropping, my rule is to let well alone.

Tell the patient of the exact state of affairs, and, if it gives rise to harassing cough, an assistant can clip it off with a pair of scissors. As soon as the

system is thoroughly under the influence of the iodide of potassium the strong probability is that the separated parts will unite again. Indeed, I have often seen a hanging uvula unite again through its whole extent. No artificial instrument will take the place of the normal palate. A false palate only produces an approach to the normal voice.

It is a very singular pathological fact that a congenital cleft palate when operated upon, or an accidentally wounded palate will unite easily, whereas a perforated palate, the result of old syphilitic disease, will not be apt to unite after operation, unless the general disease is entirely banished from the system, and sometimes not even then, and unfortunately, you never know when the system is free.

This brings us to a consideration of the question, as to how long the system should be kept under the influence of antisiphilitic remedies. I would continue the administration of these remedies until all evidences of the disease had ceased, and still keep them up for a couple of months longer, and then let small doses be taken every few weeks, and whenever the throat shows the slightest disposition to take on specific inflammatory action. When small doses of the iodide of potassium produce catarrh, and other prompt systemic evidence of its potency, you have a perfect right to infer that the specific disease has abated or left the system.

Some physicians hold that syphilis can never be eradicated from the system. You should always keep your patient under close observation for a number of months after he has ceased to take medicine.

In the treatment of syphilitic sore throat in infants, as in adults, mercury is indispensable. This drug should be given by the mouth or by inunction. Sir Benjamin Brodie recommended smearing mild mercurial ointment on the inside of the flannel shirt worn by infants.

In the coryza of syphilitic children the nose should be frequently cleansed by means of a syringe. In using the syringe see that the infant's head is brought well in front of you and is held downwards, so that none of the purulent matters from the nose are swallowed, and so brought in contact with the mucous membrane of the pharynx and epiglottis.

ORIGINAL ARTICLES.

CHOLERA—A TRUE NEUROSIS.

HENRY RAYMOND ROGERS, M.D.

In the study of this mysterious disease, physicians in all the ages have been but too apt to allow themselves to be guided by the literal evidences of their senses, and the superficial appearance of things.

The prominent symptoms disclosed by the *primæ viæ* have caused those parts to be regarded as the primary location of the disease. Nothing can be more erroneous in fact or more misleading in practice. It is, therefore, not surprising that every form of treatment employed, until a recent period, has resulted in failure. Success in its future management must, therefore, depend upon a better appreciation of its intimate nature, and a truer conception of the mode of its operation upon the human system.

The fact that this disease is capable of making its invasion and proceeding to a fatal termination in the space of twenty or thirty minutes, is conclusive evidence against the theory of germ, decompositions, or specific poisons. We are thus led to regard it as a true neurosis.

A careful review of its prominent symptoms abundantly sustains this conclusion.

The distinguishing characteristic in this disease is the *reversal of the action of the mucous surfaces of the stomach and intestines*. The normal action of those surfaces is to take up the fluid contents of those organs, and to convey the same on their way to the systemic circulating current in the blood-vessels. In this disease this normal process (termed endosmosis) gives place to a *reverse* current in which the watery element of the blood passes with greater or less rapidity *into those cavities*. This element constitutes the so-called rice-water evacuations.

These transudations into the stomach and intestinal canal in their profuseness, and painlessness, can by no possibility occur, except that the *nerves*, whose office it is to preside over the parts implicated, fail to perform their functions in a normal manner. No fluid, however attenuated, can make its way through the walls of the blood-vessels while the latter preserve their integrity. Thus the unlocking of the exhalant orifices of the blood-vessels, *permitting* the rapid filtration into the stomach and intestinal canal of the finer elements of the blood, and sometimes of the blood itself, is a *positive evidence of perturbation in the action of the nerves which supply the vessels and membranes through which the infiltration takes place*.

The *cramps* arise from purely nervous causes; the *vomiting* is simply regurgitative; *collapse* may occur from the initial force of the disease, although most frequently due to the diminished volume of the vital current. In rapidly fatal cases the disease expends itself wholly upon the *brain and nervous system*, and death occurs before other organic changes can have taken place. After death no constant and uniform changes are found in the fluids or tissues of the body which can be regarded as the cause, or the products of the disease.

We may, therefore, consistently ignore all previous theories, and discard all forms of treatment which have been so fruitless in results, and seek some other philosophy which shall better account for the conditions observed, and some other treatment which may prove more successful.

In viewing this disease from a neurological standpoint, the treatment emerges from the pure empiricism which has ever characterized it and becomes thoroughly scientific. It also becomes the perfection of simplicity.

In the treatment of this disease there are two great and leading indications to be observed. First, to change the perturbed condition of the nervous system, and thus shut down the flood-gates through which the life ebbs away; and second, to ward off the effects of the exhaustive drain upon the vital current. The first may be accomplished by the hypodermic injections of morphia, and the second by position.

It cannot be too firmly impressed upon the professional mind that the rapid diminution of the vol-

ume of the blood, through exudation, is attended by the same results which follow a true, active hemorrhage. From the commencement of this disease this exudation is in progress in a manifest, or a concealed form, and with greater or less rapidity, and demands the precautions and treatment due to active hemorrhage.

In the hypodermic form of medication there is certainty of retention of the remedies employed and promptness and efficiency in their action—a very marked contrast with all other forms of treatment which have ever been employed. The commendation of this method by those who have employed it is expressed in the strongest terms. The reports of cases thus treated in Asia, Europe, Australia, and in various portions of our own country show almost uniformly favorable results.

The following treatment was employed with successful results in my latest cases—twelve in number—the most of which were grave and typical :

(1). The hypodermic use of morphia, administered according to the age and condition of the patient, usually in quantity of one-eighth to one-quarter of a grain, and *not* frequently repeated.

(2). The horizontal position, or with the head lower than the body.

(3). *For the mouth, nothing but ice*, and that *ad libitum*. When this cannot be obtained, the coldest water may be given, and frequently repeated, in small quantities.

(4). External heat, frictions, etc.

The following case, as illustrating the above treatment, may be deemed *apropos* : Mr. T. was seized at midnight, and at early morning was found to be on the verge of collapse. In his condition of almost complete exhaustion, with pulse almost imperceptible, the use of morphia was contra-indicated. The first duty, therefore, was to stimulate the brain and heart to action by sending to those organs a current of blood by gravitation. The head was quickly placed many inches lower than the body and extremities, and the other measures resorted to. At the end of one hour the pulse had perceptibly improved, and a quarter of a grain of morphia was hypodermically administered. The inclined position was continued several hours. The result was favorable.

The same treatment applied to cholera-morbus is also prompt and favorable in its results.

A more full explanation of the views of the writer regarding the origin, dissemination, pathology and treatment of this disease may be found in the "Transactions of the American Medical Association," 1876.

A CASE OF RUPTURE OF THE PENIS ACCOMPANIED BY A GREAT AMOUNT OF EXTRAVASATION.

BY
VALENTINE MOTT, M.D.

J. D., Irish, aged 39. Upon examination of the patient, who complained of having hurt himself while leaning against a woman, the penis was found to be excessively enlarged, being at least six inches long in a flaccid state, and about one and a half in diameter. It was of a deep purple color through-

out its whole extent, due to the extravasation of blood, and the extremity was bent upwards, the whole of the prepuce being greatly engorged. The glans penis could be felt slightly swollen by inserting the fingers between the edges of the prepuce. The man gave the following history: Early the previous evening he was fondling a young woman and had an erection, his penis being pressed upon by his trousers. Suddenly he felt something give way, the erection subsided and the penis began to swell. He went home, went to bed, and, on awakening the next morning, found his penis and scrotum all black, whereupon he came to the Our-Door Poor Department of Bellevue Hospital, seeking relief. He did not experience any pain.

From the general aspect it was concluded that the corpus spongiosum had been ruptured.

A number of small incisions were made along the penis, in order to remove the tension, and the patient was sent to the hospital, where hot fomentations were applied. In the course of ten days the swelling all went down, there was no trouble in urinating, and the patient was discharged.

In connection with this case, one of rupture of one of the corpora-cavernosa might be mentioned. The patient was a married man and during the absence of his wife one night was seized with a violent erection. Thinking of the well-known and popular theory about breaking a chordee, he knocked his penis up against one of the bed-posts, it immediately bent slightly to one side and began to swell, the erection disappeared, but the swelling continued, and the angle of deflection became very great. His wife soon after came home and her first exclamation was, "That never would have happened had I been here." The treatment was the same as above, and no evil consequences followed.

HOSPITAL RECORDS.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

SERVICE OF JAMES H. HUTCHINSON, M. D.,
CONSTRICTION OF THE AORTA; HYPERTROPHY OF THE HEART, ASCITES, ETC.

I. S., æt. 19, single, was admitted into the hospital on February 10th, 1879. His mother died of inflammation of the lungs; his father is alive but is said to suffer from heart disease, but his brother and sister are in good health. In early life he appears to have been free from disease of all kinds, and positively states that he has never had rheumatism or venereal disease. His habits have always been temperate. About a year ago he had intermittent fever, while living near the Delaware, at Port Richmond, which was quotidian in type, and lasted throughout the winter, at intervals. During the following spring and summer he seems to have been in his ordinary health, but in the fall caught a severe cold, which was accompanied by pain in the chest and small of the back, cough, bloody expectoration and frequent micturition, which kept him in bed for two months. While convalescing from the acute symptoms of this attack, he suffered from

dyspnoea, and noticed that his abdomen was beginning to enlarge. There has been no oedema of the lower extremities or of the face.

When admitted he was still suffering from cough, which was unaccompanied by expectoration of blood. The patient is anæmic, but not emaciated, and is rather small and undeveloped for his age. His appetite is good; his tongue moist and but slightly coated; his bowels are constipated and his hands somewhat cyanotic. He suffers from constant dyspnoea. His urine is passed in small quantity; it is of a clear amber color, and contains a slight amount of albumen ($\frac{1}{12}$ of bulk,) but no tube casts. Its specific gravity is 1025, and its reaction acid.

The impulse of the heart is felt in the sixth interspace external to the line of the nipple, and is heaving. Percussion shows that the organ is enlarged in every direction. At the apex a loud, blowing murmur is heard. At the base a systolic murmur is also heard, both to the right and left of the sternum, but less distinctly than at the point of impulse. These symptoms and signs must have been present for at least twelve months, as he states that he applied and was rejected by the medical examiner of the school ship about a year ago, on account of heart disease. There is a small amount of liquid in the peritoneal cavity and the superficial veins, upon the right side of the abdomen, are very much enlarged, indicating probably some interference with the portal circulation.

Feb. 15.—The effusion in the abdomen is increasing. The liver can now be plainly felt, extending three fingers' breadth below the arch of the ribs in the mammary line and also in the mid-sternal line. Its surface is smooth and free from nodules. The amount of urine passed in twenty-four hours is less than a pint. The patient has been taking since his admission Basham's mixture and broom tea, which have not yet, however, produced any great increase in the flow of urine.

March 10th.—The patient has been steadily getting worse since date of last note. He constantly expectorates blood, and his dyspnoea is distressing to witness. All attempts to increase the urinary secretion have failed, although several different diuretics have been given. On the other hand, the abdominal effusion has been steadily increasing, until now his abdomen measures $38\frac{1}{2}$ inches in circumference. With a view of diminishing the effusion he was ordered to have gr. $\frac{1}{2}$ of elaterium.

March 16th.—Notwithstanding the free purgation which was induced by elaterium, the effusion has increased to such an extent, and the dyspnoea is so distressing, that it was thought necessary to resort to tapping, when $10\frac{1}{2}$ pints of liquid were removed. The patient bore the operation perfectly well. A day or two ago a teaspoonful of the fluid extract of jaborandi was given, but the depression which followed the sweating induced by it was so extreme that it was thought not wise to repeat the dose.

March 17th.—Patient died this morning at 7 o'clock. He reacted fairly after the operation and passed a comfortable day, but in the night was restless, and died in the morning apparently from syncope.

March 18.—Autopsy $27\frac{1}{2}$ hours after death;

chest and abdomen only opened. The lungs were found congested, especially the base of right lung. Throughout the left lung were numerous infarctions; the heart was very much enlarged, weighing when emptied of the fluid blood and clots which it contained 24 oz. Its walls were in a relaxed condition, but were very much hypertrophied. All the cavities were dilated, especially the left ventricle. The mitral orifice readily permitted the passage of the four fingers of the hand, thus causing a marked insufficiency of the valve. The aortic semilunar valves were healthy, but just above the point of origin of the coronary artery, which was enormously enlarged, the aortic was constricted, the stricture only allowing the point of the little finger to pass through it. Beyond the stricture the aorta was small, being little more than half the usual diameter; the ductus arteriosus was closed. The liver weighed 3 lbs. Its projection beyond the arch of the ribs was not so marked as during life. External to the mammary line it was covered by them, but within the two mammary lines it extended fully two inches below them. Its substance was firm and congested. The gall bladder contained about a half ounce of thick viscid bile. In the fissures of the liver were found some enlarged glands, two of which were situated so as to compress the portal vein at its point of entrance into the organ. There were thickening and oedema of the cellular tissue in the neighborhood, but no traces of previous inflammation. The spleen was not enlarged, but was deeply congested; the kidneys were also congested, but were otherwise apparently healthy.

The case presented some difficulties in diagnosis during life. The existence of hypertrophy with mitral regurgitation was of course distinctly recognised, although we were hardly prepared for the extent of the former. The murmur at the base was so much feebler than that at the apex and had so much the character of a transmitted murmur that it was accepted as such. It is doubtful, even if we had recognized the fact of its origin in the aorta, whether we should have been able to trace it to a coarctation of the vessel, as its seat was so near the heart. The semilunar valves closed perfectly during life, as the murmur was followed by a distinct second sound. The point which interested us more during life was the explanation of the ascites. It will be remembered that there was no history of oedema of the feet or of the face, and that the dropsy was entirely confined, even up to the close of life, to the peritoneal cavity. The enlargement of the superficial abdominal veins made us seek in the liver for the cause of the effusion. The coincidence of albuminuria rendered it not unlikely that there might be amyloid degeneration of that organ. But against this hypothesis was certainly the fact that the urine was deficient in quantity and of high specific gravity, a combination of symptoms which is certainly better explained by referring them to a congested condition of the kidneys, the result of the disease of the heart rather than to amyloid degeneration of these organs. We felt sure that there was obstruction in the portal circle, but it was impossible to discover positively the nature of that obstruction. The autopsy showed that it was due to compression of the portal vein by enlarged glands situated on the fissure of the liver.

It is certainly surprising that with such an enormously dilated mitral orifice there should have been no systemic dropsy. During the time he was under observation in the wards, he was by no means always in bed, but not only generally sat up during the day, but walked about through the wards and grounds of the hospital, and yet at no time was there the slightest swelling of the feet.

There can be no doubt that the starting point of the cardiac disease was the constriction of the aorta. Whether this was congenital or not cannot be positively asserted, but the fact that there was hyperspadias, imperfect closure of the inguinal rings and other evidences of imperfect development, render it at least probable that it was. It unquestionably gave rise to the hypertrophy and dilatation of the left ventricle and to the consequent insufficiency of the mitral valves. The pulse at the wrists was feeble but there was nothing in its character to lead us to suspect that there might be constriction of the aorta.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY JOHN A. WYLLIE, M.D.

GASTRO-HYSTEROTOMY—REMOVAL OF DEAD FETUS—RECOVERY.—M. FAIVY.

Patient, æt. 27, in good health, remarkably low in stature (1 m. and 20 cm.) which is due to a chronic rachitis. There is enlargement of the cranium, and distortions of the long bones. She had not been able to walk until ten years of age. The pelvis is deformed from rachitic changes in the bones, which from pressure of the superincumbent weight of body and muscular action are approximated until the outlet measures only 6 cm. in the sacro-pubic diameter. Notwithstanding this contracted pelvis she was delivered of a dead fetus four years ago, after a protracted labor of four days, in which the bones of the fetal head and of the mother's pelvis were displaced by uterine pressure.

In March, 1879 this woman again arrived at term. Labor began at 3 o'clock, A. M., March 6. Dr. B arrived at 2 o'clock P. M., next day. The membranes had ruptured 10 hours, previous to his arrival. Expulsive pains regularly every 5 or 6 minutes—os and neck not dilated—pelvis contracted as above stated. Operation of gastro-hysterotomy promptly performed. Uterus contracted rapidly after the contents were removed. Child was dead. Hemorrhage to extent of about 150 grammes. No vessels tied. No sutures in uterine incision. Vomiting occasionally for first 2 days—arrested by applying vessel containing ice water over abdomen. March 26, painful œdema of the left leg which lasted five days. April 20, her menstrual function returned and the recovery is complete.—*Gaz. des. Hop. June 3, 1879, p. 300.*

SECOND CASE OF SUPRA-PUBIC LITHOTOMY—SUCCESSFUL.—LUDVIG.

The *Pester Med. Chir. Presse.* 1879, vol. 1, contains

a case operated upon by L., in which a phosphatic stone weighing 75 grammes, and measuring 5 by $4\frac{1}{2}$ centimetres, was removed by the supra-pubic incision.—*Ibid.*

VAGINAL HERNIA.—MICHELSON AND LUKIN.

A widow æt. 52, mother of 12 children, the last born 12 years ago. A year since she suffered from prolapsus uteri, which was replaced. Patient presents on examination, a swelling about three inches long, reddish blue in color, protruding between the labia-majora, covered with granulations and pus. Diagnosis—Polypus of the uterus—operation for removal. After suffering severe pain in the abdominal regions for several hours, death ensued. *Autopsy*—In the pelvis was found a half pound of liquid blood. Uterus and ovaries atrophied. A portion of the great omentum and a piece of the transverse colon were carried away with the mass. In the posterior wall of the vagina, was an opening about 5 cm. in diameter. 24 cm. of omentum and 10 cm. of the colon were excised.—*Centralblatt für Chir., May 3, 1879, p. 303.*

SOME EXPERIMENTS TO DETERMINE THE INFLUENCE OF INTELLECTUAL LABOR ON THE DEVELOPMENT OF THE CRANIUM.

MM. Lacarsagne and Cliquet communicated to the *Société de Médecine Publique, etc.*, containing the results of comparative measurements of the heads of various individuals, viz., 190 doctors in medicine, 133 soldiers who had received a rudimentary education, and 90 other soldiers completely illiterate:

The antero-posterior diameter averaged:

	Doctors.	Soldiers, educated partially.	Soldiers, illiterate.
	85.29	81.97	79.13
Frontal..	48.91	43.65	42.35
Parietal..	52.58	49.66	50.27

Moreover, the two halves of the cranium are not symmetrically developed. In the educated the left half is most developed, and in the uneducated the right half. They conclude:

1st. The cranium is more developed in the educated than in the uneducated.

2d. In the educated the frontal region is relatively more developed than the occipital region.—*Gaz. des Hop. March 15, 1877, p. 244.*

MARC SÉE—THE RELATIVE CAPACITY OF THE TRACHEA AND THE BRONCHI.

It has been the opinion heretofore that the capacity of the respiratory tubes increased in proportion to their proximity to their final distribution in the air cells, so much so that this cavity has been compared to a cone with its apex at the cricoid cartilage. According to Mark Sée, this is not the case. The results of his labors are as follows:

1. In their normal condition the sum of the calibre of both bronchi is equal to that of the trachea. Furthermore, the calibre of the primary bronchi is equal to that of the trunk from which they originate. The air passages, therefore, do not represent a cone but a cylinder.—*Deutsche Med. Wochen, Mar. 15, 1879.*


THE HOSPITAL GAZETTE,

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

EDWARD J. BIRMINGHAM, A.M., M.D. *Editors.*
FREDERICK A. LYONS, A.M., M.D.

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EDITORIAL.

"NO FAMILY SHOULD BE WITHOUT IT."

We have lately received the reprint of an article, or articles, that appeared in the *Louisville Medical News* for May and June, 1879. It is entitled "An Account of the Perineosinuexerecinator," by Jacques Robinson, A.M., M.D., Surgeon to the Hospital for Ruptured Vesicles, Member of the Anteversion Society and the Round Ligament Club, etc., etc. In this beautifully written and well based article, the author, so well and favorably known in the field of gynecology, gives us the description of the Perineosinuexerecinator, "a new instrument for the exploration of sinuses, especially adapted to gynecological practice." An advance so novel and important in a field so large must needs meet with the attention and approbation it merits. After giving due credit to Dr. Smithe, the eminent gynecologist of Jonesville, for his sinus probe, he shows wherein it fails. It being but three inches long, is useless in exploring sinuses of greater depth. He then dilates on the advantages of the Jones' modification of the Smithe probe, the latter being four inches long. He very justly says: "This was a great improvement, but the instrument was not yet perfect. Both the Jones and Smithe instruments were confined in their operation to sinuses which were perfectly straight, and this fact led that obstetrical wonder, Dr. Brown, to devise an instrument which could be used in the exploration of sinuses which were deflected from a direct line. Dr. Brown also bore in mind the important fact, which was demonstrated by the Viennese school, that sometimes the sinus runs up and sometimes the sinus runs down. To meet this double difficulty he constructed a probe which upon its right extremity ascends in a gentle curve, while upon its left extremity it decends in a similar manner."

The author then ably sums up the objections to the various modifications, as follows:

The Smithe instrument was too short, the Jones modification was too straight, and the Brown modification was too curved, and, as will be seen at a glance, can be only used in *deflected* sinuses. I have, therefore, after much experimentation, constructed an instrument after the pattern in the accompanying diagram, which, it will be seen, is curved at one end and straight at the other. If the sinus is straight, then the straight end is used; if the sinus is curved, the curved end is used. If it point upward, the curve is pointed in a similar direction; if it point downward, the curve is simply reversed. So also I have caused my instrument to be made of two sizes—one three inches long, the other four—that it might cover the same field with the Smithe instrument and the Jones modification."

Oh! happy Kentucky, land of great men, your history chronicles great deeds, but none so great as this. The history of science shall long outlive the common history of a people, and in future years our grandchildren will collect at Brownsville to erect a monument over the grave of your illustrious son, Jacques Robinson.

This is nothing less than *the extended amplification of a modified modification*. The author not only fully justifies the theory of his instrument but adduces two remarkable cases showing its practical working. As a model of history taking, in which all the necessary details are given, we recommend the one here given to the careful study of the younger members of the profession.

"Mrs. A. B., aged forty years, female, brunette, bilious temperament, native of Kentucky, residence in Louisville, 397 West 36th street, north side, (up stairs); married 4th of July, 1866 (no cards); three children, named respectively Thomas, Richard and Henry; weight one hundred and twenty-three pounds (somewhat greater after eating).

She states that her appetite is good when she is hungry, generally sleeps at night, and is about during the day. Had suffered the week previous to her visit to me with perineal furuncle, for which ordinary remedies had been used, and it had discharged. Suspecting a sinus had resulted, I made exploration with the smaller of my instruments, and verified my diagnosis. Sinus measured 2 centimetres in depth.

R. Argent nit., to be used locally and to take fluid ext. black haw. Cured."

Gynecology is noted for its able men and their wonderful modifications of ingenious instruments. One more addition to the several thousands now in existence may seem a small matter, but it is not.

It is the great question involved. A single instrument like this brings joy to the instrument maker, work to the printer (the name being so simple), and draws another shekel from the plethoric pocket of the country practitioner. There is but one Turnipseed, and but few Robinsons. All hail to the hospital for Ruptured Vesicles, the Ante-version Society, and the Round Ligament Club!!!

It may be well to say for the benefit of those not "up" in Sanscrit that the word is to be in two syllables, and the letter *e* in Jacques is to be pronounced like *a* in *at*.

CORRESPONDENCE.

SANDS vs. OTIS.

NOTE IN REGARD TO THE "CORRECTION FROM DR. WEIR."

On page 262 of THE HOSPITAL GAZETTE (7 of the reprint), in a reply to Dr. Sands, I alluded to a case, previously cited from Dr. Allin's service, in these words: "*The case referred to had been under Dr. Weir's observation and care for some time, was considered the subject of deep, close organic stricture, and treated as such, and was so considered when the service was entered upon by Dr. Allin.*"

Dr. Weir offers a correction to this statement and says that, "at the only examination made by myself (himself), a sound was arrested in a supposed false passage, and that then a filiform bougie was passed into the bladder without difficulty and without resistance, in other words" says Dr. Weir, "*no proof of the existence of a stricture was obtained by this examination.*" Thus leaving it to be inferred that my statement above quoted was incorrect, and that *he had not considered the case as one of deep close organic stricture, nor treated it as such.*

I have not stated that Dr. Weir had *proven* the existence of a stricture but that "*it was considered*" by him (Dr. Weir), a close, deep organic stricture, and treated as such."

Now, if Dr. Weir did *not* consider the case one of organic stricture, what did he *consider it*, and for what did he treat the patient by means of sounds and *filiform bougies*. He says: "*A filiform bougie was passed into the bladder without difficulty and without resistance.*" Why a filiform? Why not a full sized sound if there was no stricture? "A sound," he says, "was arrested in a supposed false passage," but surely there would have been no difficulty (in the absence of stricture) in passing a tunnelled sound over the filiform bougie, which "was passed into the bladder without difficulty and without resistance." What did Dr. Weir *consider* the case after it had been under his care for several weeks and he had been unable to get anything larger than a filiform into the bladder? This was the state of things when Dr. Weir turned his service over to Dr. Allin. When Dr. Allin entered upon the service, he began at once to treat the case as one of organic stricture.

Why did Dr. Allin treat the case as one of stric-

ture, if Dr. Weir had not so *considered it*? Dr. Allin, in his report of the case to the Medical and Surgical Society, made the statement that it was "*so considered,*" and had been treated as a case of close, deep organic stricture. My statement to that effect was based upon that of Dr. Allin.

Dr. Sands, in the account which he cites of this case (Bernard O'C., page 9 of Dr. Sands' second paper), states that he (the patient referred to by Dr. Weir), "*passed stream of urine about size of knitting needle.*" Examination of urethra detected *obstruction about 5 inches behind meatus, admitting only filiform bougie.* At the same point, a steel sound, No. 25 F, entered what appeared to be a false passage. High fever, with thrombosis of the left femoral vein, followed this examination, and no further mechanical treatment was undertaken until Sept. 26th (patient was admitted July 31st), *when the deep stricture was found to be impassable to filiform bougies.*"¹ And yet Dr. Weir objects so strongly to having it supposed that he considered the case one of "deep, close organic structure" that he calls public attention to my alleged mistatement to that effect. Certainly if there was no stricture in the case, and it was one of false passage simply, any evidence favoring this view would support Dr. Sands, and thus account for the appearance of Dr. Weir's correction appended to Dr. Sands letter. If then Dr. Weir continues to believe, as he stated, that, at the only examination made by him *no proof of the existence of stricture was obtained*, will he now, after this review of the matter, state what sort of obstruction he did consider to have been present, and for what he treated the case.

F. N. OTIS, M.D.,

No. 108 WEST 34th ST.,
AUG. 1st, 1879.

SELECTIONS FROM JOURNALS.

LITHOTRITY BY A SINGLE OPERATION.

Dr. Henry J. Bigelow, in a recent communication to the *Lancet* (May 17, 1879), says that his method is now no novelty in America, and adds the few following recent examples of his operation which was named litholapaxy.

An operation which I performed January 26th, in the case of a medical gentleman, aged sixty-seven years, lasted fifty minutes, and consisted of two crushings, occupying fifteen minutes; three evacuations of fragments, nine minutes; changes and other delay, twenty-six minutes. Two hundred and sixty grains of phosphatic stone were thus removed. The patient had no trouble from the operation, and on the thirteenth day went home to the country well. There were no fragments left in the bladder.

In another case (February 10th), that of a man aged fifty years, one diameter of the stone measured $1\frac{5}{8}$ inches. The operation lasted one hour and twenty-one minutes. The crushings occupied twenty minutes, the evacuation of fragments thirty, while the changes, etc., were recorded at thirty-one minutes. Three hundred and two grains of hard oxalic calculus were crushed and drawn out,—with some delay in the operation, due to fragments

¹ Italics my own.—F. N. O.

lodged behind a high prostate. I was unable to break the stone with Charrière's or rather Collin's instrument. The patient had no unfavorable symptoms, hardly a trace of blood, and no fragments were left.

This case, which involves, so far as I know, the largest hard stone yet evacuated at one sitting, is an example of what can be done by the new process. In evacuating such stones, it need only be said that, the smaller the tube the more minutely must the fragments be broken, and the greater will be the liability to obstruction. Small stones, common in these later days of lithotripsy, especially soft ones, are not unfrequently crushed at one sitting, by any lithotrite, without ether, and if reduced to sand, may really need no tube to evacuate them.

The following case is as good a test of the new operation as I could wish: The patient, aged thirty-three, entered the hospital October 31st, about four months and a half ago. His condition was so bad that it was thought inadvisable to attempt any operation, even lithotomy. The urine was ammoniacal and fetid, always containing a large quantity of blood, also pus and mucus to the amount sometimes of nearly one-half by measurement. Micturition was very frequent, occurring at intervals of from ten minutes to half an hour, day and night, during much of this time. The straining was excessive, ineffectual, and productive of great suffering. Three unsuccessful attempts having been made on previous days, a sound was first introduced into the bladder, under ether, November 10th. The next day the temperature rose to 103° , and remained thereabouts till the fourth day, when another complication presented itself. The left knee became suddenly inflamed and swollen. It has remained so ever since. During the next two months the temperature ranged from 100° to 102° daily—afterwards slowly receding though the other symptoms did not abate. I saw the case, for the first time, March 7th. With so diseased and irritable a bladder, it was evident that litholapaxy could be considered only as an experiment. It was a last resort, being perhaps better than lithotomy. Should it succeed, it would testify strongly in favor of the new method; should it fail, it could hardly be counted against it. On the 9th of March I operated. In the neighborhood of the triangular ligament an obstruction prevented the passage of sounds larger than a No. 15 French calibre. After snipping the meatus, this obstruction was divulsed by Voilemier's instrument, and it then admitted a full-sized lithotrite, and a straight tube 29 French, for which, later in the operation, 30 was substituted. Two hundred and forty grains of stone were now slowly and carefully removed in sixty-eight minutes. An abundance of flocculent and fibrinous material concealed the fragments when lying in a basin, and testified to the inflammation. At 4 P. M., four hours after the operation, the temperature had fallen from 99° to 96° . In eight hours more, at midnight, it had risen to 103° , with a pulse of 130, where it remained through the day, the tongue being red, smooth, and dry. A general pain in the region of the bladder and urethra required opiates. Yet on the third day the tongue became moist, with a light coat, the temperature had fallen to 99° , and the pulse to 84. This im-

provement still continues. The patient has had no such comfort for many months. During the first week after the operation, he passed his water six times in twenty-four hours almost without pain, and there has been no tenderness over the bladder. The urine contains very little sediment, and, apart from the knee, which remains as it was, the patient is rapidly convalescing.

My new lithotrite proves to be very efficient, and I am recently indebted to London makers (Weiss and Son) for an instrument that works perfectly. It is of a good size for general use; a smaller one, if preferred, may be used in special cases. The instrument is non-impacting, and keeps clean in the bladder for an indefinite time. Its rounded tip protects the bladder in a protracted operation, as it also does the prostate during introduction. For the old wheel, which hurts the hand in long crushing, the ball is a welcome substitute. And unless the human hand undergoes some modification of what are now its easiest movements, the system of a *right hand lock*, here first employed, must, as I believe, whatever be the size of the lithotrite, supersede in time any previous method of locking. — *Mon. Abstract.*

PROLAPSING INTERNAL HEMORRHOIDS.

Prof. Gosselin referred in a recent clinical lecture (*Gazette des Hôpitaux*, April 29, 1869) to a case in which internal hemorrhoids only descended during defecation, sometimes with bleeding, were difficult of reduction, and attended by considerable pain. There being no contraction of the sphincter, forced dilatation was not required, and the chief indication consisted in diminishing the size of the hemorrhoids, a practice that is preferable, when practicable, to their removal by operation, which is attended with considerable danger. When they are diminished in size they either return spontaneously, or are easily returned without pain by the patient. In this case the diminution was brought about by parenchymatous cauterizations made with Paquelin's thermo-cautery. No loss of blood took place, the eschars were soon eliminated, cicatrization promptly followed, and the diminished hemorrhoids were returned with very great facility after stool. The patient has had to take some aperients, especially rhubarb; and before leaving the hospital he was cautioned not to remain too long at stool, which most persons with prolapsing hemorrhoids are very apt to do, when the efforts made render the hemorrhoids larger, increase the hemorrhage, and prolong the malady. He was also cautioned to avoid strong alcoholic drinks, which increase the size and produce congestion of the hemorrhoids. Finally, he was told to avoid constipation, keeping the bowels freely opened either by rhubarb or enemata, so as to avoid expulsive efforts, and large masses of feces which produce irritation and maintain the hemorrhoids. In these cases of internal hemorrhoids the surgeon should content himself with obtaining these three results—that they do not descend during progression, that they do not bleed, and when they descend at stool they are easily reduced. — *Med. Times and Gazette*, May 10, 1879.

THE NON-EXCITABILITY OF THE GREY MATTER OF THE BRAIN.

M. Couty has carried out a series of researches on the excitability of the grey substances of the cerebral convolutions. He was led to endeavor to paralyze this substance, in order to ascertain whether the electrization of the surface of the brain practised under these conditions would produce the same effects as in the cases where the cerebral cortex possesses all its activity. With this object, he ligatured the principal arteries of the encephalon, with the following results. The sigmoid gyrus in dogs which have undergone preliminary ligature of the arteries becomes more sensitive to electricity, and feeble currents suffice to determine contractions of the limbs of the opposite side. Moreover, a cortical lesion, which would have no influence on an animal in a normal state, constantly determines after the quadruple ligature marked affections of motion; it sufficed in the majority of his experiments to expose the brain on one side at the level of the gyrus, to observe immediately contractions or paralyzes in the limbs on the side opposite to that which had been trephined. He subsequently ascertained that on many animals which, having one side of the brain uncovered for one or two hours, presented attacks of monoplegic or hemiplegic contraction in the limbs of the opposite side, he was able to remove not only the grey substance of the gyrus, but even the anterior half of the side of the uncovered brain; and that he has seen from following paroxysms of contraction which lasted six, twelve, or fourteen minutes after its removal. On the other hand, on those animals of which one side of the brain was uncovered, and of which the cerebral arteries had been tied for some hours, he produced by various kinds of excitation, electric or otherwise, generalized epileptiform attacks. In several cases, the contraction occupied only the trunk and limbs of the same side as the excited cerebral hemisphere; and he was thus able to realize experimentally during from six to ten minutes the fact which has been pointed out clinically of a hemiplegic contraction produced on the side of the cortical lesion. From these facts, the author deduces the following conclusions. The grey substance of the cerebral cortex does not play any part in the phenomena produced by the excitation of the surface of the brain, since these phenomena remain the same whether that grey substance be intact, or whether it be paralyzed by an anæsthetic; whether its circulation be null, or whether it be normal. 'The influence of irritation or of lesions of certain parts of the grey cerebral substance is transmitted by the white fibres to the elements situated below in the blubs and the spinal cords, elements which are alone in direct relation with the muscular apparatus; and it is through the medium of temporary or durable modifications of these bulbo-medullar elements that cortical lesions many sometimes determine disorders of the movement of the limbs.—*Brit. Med. Jour.*

NITRITE OF AMYL IN CHLORAL-POISONING.

BY
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Physician-Royal National Hospital for Consumption, etc.

The following case indicates so markedly the value

of nitrite of amyl as an antidote in poisoning by chloral-hydrate, and otherwise presents so many other points of interest in connection with the symptoms produced by overdoses of that now much used and much abused drug, that I have yielded to the request of some of my medical brethren to make it public.

A. B., aged 62, of spare habit, was a frequent and intense sufferer from gout, in seeking relief for which he had unfortunately become somewhat addicted to alcoholic stimulants and narcotics generally. Late on the evening of the 23rd of April, after a liberal potation of whiskey, he took a large, but unfortunately an unascertained dose of his favorite anodyne, chloral. The dose must have been a very large one, for within a very few minutes he became completely insensible. Fortunately, medical assistance being at hand, the case received immediate attention from the very commencement of the symptoms, which, however, became so alarming, that in about two hours I was sent for. I found that artificial respiration had been kept up for some time, but only with the effect of inducing feeble artificial, gasping respirations, at the rate of four per minute. The surface was cold and deeply cyanosed, and the pupils strongly contracted to the size of a pin's head. The pulse, however, was 80, full, but soft and compressible. I had the tongue at once pulled forward, and maintained in that position with forceps. Taking the state of the pupils as an indication, and remembering Liebreich's theory of the decomposition in the system of chloral into chloroform, I immediately administered by inhalation from a handkerchief about twenty drops of nitrite of amyl. The effect was immediate. Within two minutes, warmth had returned, even to the extremities, and the surface had assumed the hue of health. Within ten minutes, the respirations had become much deeper, reaching nine per minute, and afterwards gradually increased up to twelve. The amyl had to be repeated in a smaller dose in about two hours, with permanent effect. At 9.30 next morning, the general condition was found to have improved somewhat, but there was no return of consciousness; and an attempt to give fluid nourishment by mouth had produced great embarrassment of breathing. I ordered an enema of brandy and Liebig's extract in arrow-root to be given, and repeated every two hours. After the second enema, the patient became quite sensible, recognized and spoke to those around him, and swallowed some food with little trouble. I saw him again at 6.30 P.M., when the water was drawn off normal in amount and quality. I am informed that he continued to improve until 9 P.M., when he suddenly started up as if from sleep, with staring eyes, threw up his hand, uttered a cry, and fell back dead. I am inclined to think this fatal result might possibly have been averted by a more copious and frequent stimulation *per anum*.

The principal points of interest to be noted in this case are the extreme contraction of the pupils; the intense affection of the respiratory, the complete immunity of the circulatory system; the rapid recovery of warmth and color, with restoration of the respiratory function under the influence of nitrite of amyl; the return of consciousness in response to

stimulation *per anum*, and the sudden failure of the heart's action, which proved immediately fatal.

In cases of poisoning by chloral-hydrate, very opposite observations are on record with reference to the state of the pupils, and also as to the relative extent to which the action of the heart and lungs is influenced by the drug. Mr. W. Sedgwick, who has made a special study of the subject, states that in most instances the pupils are contracted; while Dr. Cleveland, and especially Dr. B. W. Richardson, report the contrary to be the invariable condition. I believe that the explanation of these apparently discrepant phenomena must be sought for in the difference in the amount of the drug swallowed, and the corresponding rapidity of its action. When chloroform is administered in excess *too rapidly*, it seems to prove fatal by paralyzing the respiratory centres, while the pulse remains comparatively unaffected, the pupils being *contracted*; but when chloroform inhalation is kept up *too long*, so that the drug accumulates slowly in the system, the heart first yields to its influence, and succumbs earlier than the respiration, and under these circumstances the pupils will be found *dilated*. I have ascertained these conditions, both experimentally, in the lower animals, and from a large experience of chloroform administration, commenced twenty-two years ago, while assistant to the late Sir James Y. Simpson. A parallel discrepancy in symptoms may be noted in cases of *delirium tremens*, where the phenomena of the attack have been developed as a result of prolonged drinking to excess, or from one deep debauch.

Liebreich, the discoverer of chloral-hydrate, believes that it acts on the system by being resolved into chloroform from decomposition in the presence of an alkali; and although this opinion is purely theoretical, yet it must be admitted that there are marked and close resemblances both in their physiological and therapeutic effects. This would at once explain why nitrite of amyl should be the best antidote in chloral-poisoning, much more certainly than strychnia, which has been proposed as its antagonist; while, strangely enough, nitrite of amyl itself is proposed by Dr. B. W. Richardson as the antidote to strychnia poisoning. May it not be that nitrite of amyl will prove the appropriate antidote when the drug has been administered in such quantity as to act rapidly on the respiratory centres, *with contracted pupils*, and that strychnia should be given when the drug has acted slowly as a cumulative poison when the heart has succumbed, *and the pupils are found dilated*?—*Brit. Med. Jour.*

HIGH TEMPERATURE TREATED BY THE APPLICATION OF ICE.

On the 27th May, I was called by an Italian physician in consultation on a case of typhoid fever occurring in a German lady. When seen, she was in a comatose condition; her pulse was 144; her temperature 107.6° F. The application of cold water was considered advisable, and it was carried out by means of cloths wrung out in iced water, which were placed on the thorax, abdomen, thighs, legs, arms and head, and incessantly replaced by others. By this treatment, assiduously kept up for one hour only, the temperature was reduced to 99.7°; and

the case has (with the exception of alarming hæmorrhage of the bowel) progressed favorably, and is now approaching convalescence.—CHARLES SPURWAY, in *Brit. Med. Jour.*

CONTRIBUTIONS TO THE PATHOLOGICAL ANATOMY OF ACUTE DELIRIUM.

Jehn (*Arch. Psych.* viii., page 594) has had the opportunity of observing and studying four cases: The first patient was ill for twenty-two days, and eight days before he died gangrene of the right leg set in, beginning at the foot and spreading rapidly over the whole limb. The right forearm, from the hand to the elbow upwards, was also similarly affected. At the necropsy an unexpected complication was met with in the shape of a hard tumor, of the size of a nut, on the left side of the pons, which seemed to spring from the acoustic nerve; the ganglia of the sympathetic cardiac plexus were partly degenerated, and the cortex of both kidneys showed fatty degeneration.

The second case lasted for sixteen days. A few days before death phlegmonous inflammation of the right foot set in, and on the night preceding the end, the patient's back, abdomen and legs were covered with numerous pustules. At the necropsy the latter were found to communicate with abscesses under the skin. The liver was partly in a state of fatty degeneration, and the capsules of the kidneys very adherent, the cortex being of a yellowish tinge.

In the third case the patient was delirious for twenty-six days. In the course of the last six days a gangrenous phlegmon of the right leg set in. The liver was swollen and in a partial condition of fatty degeneration, the cortical layer of the kidneys of a yellowish hue and adhering to the capsules. The author considers this case, as well as the fourth, as being closely allied to acute paralysis.

In the latter, acute delirium set in towards the end of an illness which had lasted four months. It broke out while the patient was under mercurial treatment for syphilis, and lasted for fourteen days. Here also a gangrenous inflammation was observed similar to those which have been described above, which broke out in the vicinity of an open syphilitic ulcer on the right thigh. At the *post mortem* examination the posterior columns were found in a state of grey degeneration.

In comparing the results of the microscopical examination in all four cases, they were found to be alike in several points. The pia mater was always thick, dark, and of the consistence and appearance of jelly; the vessels, especially in the grey matter, were all more or less in a state of fatty degeneration, and traces of small hemorrhages could be detected in their vicinity. The nervous system seemed to have been affected secondarily, the affection manifesting itself in a fatty degeneration of the cells of the ganglia. In some cases the former had entirely vanished, and in their place only a large mass of fatty globules could be seen, while in other cells the change had hitherto confined itself to the nucleus, increasing it in size. The author is of opinion that such cases ought to be considered as acute meningo-encephalitis.—*London Med. Record*, May 15, 1879.

ERGOT IN INSANITY.

Dr. Enrico Toselli (*Archivio Italiano*, Settembre, 1878) has a long paper on the effects of ergot of rye in the treatment of mental derangement. He thinks that this drug produces cerebral anæmia, its action being the reverse of nitrite of amyl. In fact, he has found by experiment that, contrary to the opinion of Schüller, the cerebral vessels contracted by ergot may be dilated by the inhalation of nitrite of amyl. Brown-Séquard demonstrated that the primary effect of ergot was the contraction of the bloodvessels in all the organs of the body, as well as the contraction of the fibres of the uterus. Vokes obtains favorable results in treating hemicrania; Silva, in the treatment of cerebral hyperæmia; Crichton Browne, in the congestive form of mental alienation in recurrent mania, in chronic mania with lucid intervals, and in epileptic mania. Dr. Toselli found it of great use in treating serous diarrhœa, a frequent complication of dementia, especially in the paralytic form. In administering it for this purpose he observed that his patients passed out of the state of sleeplessness, and that their mental faculties were less obtuse. He either used the aqueous extract of the *Secale cornutum*, or the *ergotin Bonjean*, given twice during the night in doses of from fifty centigrammes up to as much as four grammes. He found that ergotin acted most quickly and surely in the form of hypodermic injection. Ergot diminishes the frequency of the pulse, contracts the vessels, augments the pressure of the blood, and lowers the temperature. Digitalis has more power in moderating the action of the heart, whereas ergotin has a greater effect upon the bloodvessels and in diminishing the temperature. Sometimes ergotin acts as a diaphoretic and diuretic. Sometimes the therapeutic effects have not appeared with a large dose, and only manifested themselves when it was reduced. Sometimes the calmative effect following the use of ergotin lasted as long as a month. Toselli used the drug in thirty cases and found the most benefit from it in paralytic insanity, in chronic mania, and in dementia accompanied by agitation, insomnia, hallucination of the senses, especially when these symptoms accompany melancholia and hypochondria. He does not pretend to have cured any case of insanity with ergotin, though he thinks it may arrest the course of general paralysis.—*Brain*, April, 1879.

PLEURITIC EPILEPSY AND HEMIPLEGIA.

In 1875, M. Raymond read before the Société des Hôpitaux two very interesting observations on the subject of patients who were suddenly seized with convulsions and hemiplegia, some time after having been operated upon for empyema, while injections were being made into the pleura. Several similar facts have since been observed which M. Aubain has, together with a case which had come under his own observation, worked up very successfully in his thesis (*Thèse de Paris*, 1878, and *Journal de Médecine et de Chirurgie*, February, 1879). The *modus operandi* is as follows: A patient who has been suffering from purulent pleurisy, and on whom the operation for empyema has been performed, has his wound washed out every day with

some disinfectant. He bears these injections without experiencing any inconvenience or pain for a month, six weeks, or more, when suddenly, without any premonitory warnings, the patient, who is sitting up in bed while the injection is being made as usual, falls backward in a state of imminent syncope. In a very short time convulsive spasms come on; they are almost always universal, but generally stronger on the side which corresponds to the empyema. The patient's teeth are set, the pupils which have at first been contracted are subsequently dilated. The tonic convulsions are followed by contractions; the breathing becomes stertorous, the patient foams at the mouth; urine and feces are passed involuntarily; he remains in a state of epileptic coma for half an hour or an hour, when he again recovers consciousness. Sometimes nothing more occurs, or another similar fit may supervene the same day, or two or three days later, without any injury to the patient. But in some very serious cases the patient does not recover consciousness; fit follows fit; the contractions persist; in a few cases opisthotonos has been observed, and the patient dies in ten or fifteen hours. This is termed pleuritic epilepsy. In some cases, however, another phenomenon has been observed in connection with those already mentioned, viz., hemiplegia. It may effect only one of the lower or superior extremities, or the face, the paralyzed members always being on the side which corresponds to the empyema. Motility is seldom entirely abolished, so that the affection might perhaps rather be defined as a certain degree of paresis, without any distinct disturbances of the sensibility. It is transitory, and if the patient recovers from the attack it also disappears a few days later. Lastly, there is a third class, in which the hemiplegia comes on gradually without any preceding convulsions. The symptoms are the same as above, but the affection always disappears entirely after a certain time. That these accidents are very dangerous, is demonstrated by the fact that four out of the ten cases mentioned by M. Aubain have terminated fatally. At the necropsy, no cerebral lesion which might account for the fatal issue could be discovered; the pathogenesis of the cases is also very obscure. It is very curious that these accidents should always happen when the patient is almost convalescent, and at the moment when the injection is being made. In order to avoid this complication great care should be observed in making the injections into the pleura. Very small quantities of the liquid must be injected at the time, and not too much force used in the operation.—*London Med. Record*, May 15, 1879.

PREVENTION OF RELAPSES IN TYPHOID FEVER.

Immermann is of opinion (*Centralbl.* No. 1, 1879,) that relapses in cases of typhoid fever are due to the presence of the typhoid poison in the system, except in instances where the patient has committed some error in diet. The latter occurrence can of course be prevented by watching the patient carefully, and the author has endeavored to prevent the former by putting the convalescent through a systematic process of disinfection. The process consisted in giving the patients daily from 4 to 6 grammes

salicylate of soda for ten or twelve days, beginning from the first day the temperature assumes its normal size. Fifty-one patients were treated in this way, and only two suffered from relapses; one owing to something she had eaten in secret, and the other because, owing to mistake, the drug had not been giving to him immediately, after the fever had left him. Fifteen out of sixty-seven patients who had not been treated with salicylate of soda had relapses. The author concludes from these observations, that salicylate of soda is not only a powerful preventive of relapses in cases of typhoid fever, but that it also would prove very useful in procuring immunity from the disease for the nurses and attendants.

Immermann has also observed that patients, who had been treated exclusively with cold water showed a greater tendency to relapse than others who had undergone a combined water and quinine, or salicylate of soda treatment.—*London Med. Record*, May 15, 1889.

USE OF PILOCARPINUM MURIATICUM IN CHILDREN'S DISEASES.

Weiss (*Pest. Med. Chir. Presse*, 1879, 2) has had the opportunity of observing the effects of pilocarpine in fourteen cases where the patients were suffering from nephritis, complicated with general dropsy, following scarlatina. In four cases there existed extensive bronchitis, in two diphtheria, and in one pneumonia of the left side of the lung. In each of these cases the results produced by pilocarpine were most favorable, and the patients could all be dismissed as cured. One of the most important properties of pilocarpine is that it prevents the dropsy from increasing, keeping it stationary without implicating the kidneys, till the latter have recovered their power of secreting urine more abundantly. Two different kinds of solution were used for the hypodermic injections; a 1 per cent. solution for children under four years, and a 2 per cent. one for children above four years. In such young patients, where collapse seemed to threaten from prolonged illness and great weakness, 4 or 5 drops of ether were added to the solution of pilocarpine in the syringe. The author observed, that whenever he used this mixture, the young patients did not present the phenomena which generally followed the injection of a solution of pure pilocarpine, viz., vomiting, nausea, hiccough, pallor, and a feeble pulse. The injections were made once daily into the upper arm, beginning with half a syringe, and rising to a whole one. The effects of pilocarpine generally appeared after a few minutes, beginning with a slight flush on the face, which, however, gradually increased, and only disappeared when the perspiration had ceased. The latter set in after three to five minutes, beginning on the forehead and face and gradually spreading over the rest of the body. The duration of the perspiration was different; in one case it lasted for 1½ hours, in another 3½ hours, in a third case, of very considerable universal dropsy, where the amount of urine passed in the 24 hours was only 150 ccm., the secretion lasted for 15 hours, after which, the oedematous infiltration decreased considerably. The quantity of fluid secreted in the saliva and the perspiration were in

direct proportion to the amount of pilocarpine which had been injected, and to the strength of the solution. Thus, a two per cent. solution always called forth a more considerable secretion of perspiration and saliva than a 1 per cent. solution. Two out of the fourteen patients complained in the abdomen after the injection, and four of headache. In eight cases, the pupil was seen to contract; the contraction began at the same time at which perspiration set in, and lasted from 30 to 45 minutes. The temperature was taken in every case both before and after the injection, and in several of them was observed to fall rapidly after the injection; this decrease, however, never lasted longer than from half an hour to three hours, after which time the normal temperature was again reached. Only in one case, where the perspiration had lasted for 16 hours, the temperature, which had been 40.4 deg. Cent. before the injection, fell to 38.6 35 seconds after it, and did not rise again. The pulsations of the radial artery increased in a minute from 12 to 30; the pulse was full and jerking; this acceleration lasting from 15 to 30 minutes, after which time the pulse regained its previous character. In four cases, the patients vomited. The vomited matter consisted mostly of mucus. After the injection, almost all the children coughed very much; in four cases where there was extensive bronchitis, and in a fifth, which had been showing symptoms of oedema of the lungs and uræmia, the lungs were entirely cleared from the secretion which had accumulated in them by the frequent coughing within 48 hours. In nine cases, there was a strong desire to micturate immediately after the injection; and, in three, to evacuate the bowels. The motions were thin and very offensive, and were passed in great quantity. In a case of constipation which had lasted four days, the bowels were moved copiously immediately after the injection.

There was no notable increase in the quantity of urine passed after pilocarpine had been injected; it was of a much lighter color than before. The following are the author's conclusions: 1. Pilocarpine has proved to be a very successful remedy for children who suffer from nephritis and scarlatina; 2. In giving it to children, care should be taken to begin at first with small doses, which may later on be gradually increased; 3. If the little patients are very weak and are likely to collapse after the injection, a few drops of ether should be added to the pilocarpine solution; 4. The drug produces a very copious and lasting secretion of sweat, such as no other drug ever has been known to call forth—it acts quickly; 5. In cases of bronchitis, complicated by dropsy, which often produces dyspnoea in children, the affection of the bronchi vanishes very soon after the remedy has been administered.—*London Med. Record*, May 15, 1879.

PATHOLOGY OF ADDISON'S DISEASE.

In the *Archiv de Physiologie Normal et Pathologique*, 1878, Nos. 5 and 6, M. Jaquet arrives at the following conclusions: 1. In Addison's disease, the bronzed skin one finds only as a lesion of the sympathetic system, and pigmentation, without atrophy, of the nervous cells of the ganglia which are in the neighborhood of the diseased suprarenal glands. 2.

The degeneration of a part of the nervous fibres attaching the semilunar ganglia to the nervous centres ought to be regarded as secondary and consecutive to the process of sclerosis which accompanies the tuberculization of the capsules. 3. That lesion is insufficient to serve as the basis of a pathogenic theory of Addison's disease. 4. Hyperpigmentation of the nervous cells of the great sympathetic and of the cerebro-spinal system is a fact of the same order as the hyperpigmentation of the epidermic cells of the Malpighian plexus. 5. This hyperpigmentation renders probable the existence of an alteration of the blood by the substances which a suprarenal gland would, in the normal state, be employed in utilizing by transforming them. 6. The alteration of the blood by functional or organic insufficiency of the suprarenal glands is a pathological phenomenon analogous to that which exists in chronic uremia. 7. Alongside of the melanoderma, by alteration of the suprarenal tissue, there seem to exist cases in which the melanoderma is due to the lesion of other blood-making organs. 8. Clinical researches in Addison's disease ought especially to be directed to the chemical analysis of the blood and the urine.—*London Med. Record*, April 15, 1879.

HOSPITAL FORMULARY.

PHARMACOPEIA OF THE HOSPITAL OF THE UNIVERSITY OF PA.

MISTURÆ.

15. *Mistura Potassii Cyanidi.*
 R Potassii Cyanidi..... gr. j
 Syr. Acidi Citrici
 Aquæ.....aa f 3 ss
 M. Dose, one teaspoonful.
16. *Mistura Sodii Composita.*
 R Sodii Bicarbonatis..... gr. xx
 Acidi Carbolici..... gtt. ij
 Acacie.....
 Sacchari.....aa q. s
 Spts. Lavandulæ Comp..... f 3 ij
 Aquæ.....q. s. ad f 5 j
 M. Dose, a teaspoonful two hours after meals.
17. *Mistura Olei Morrhuæ.*
 R Olei Morrhuæ..... f 3 j
 Tr. Iodini Comp..... m viij
 M. Dose, one to four teaspoonfuls.
18. *Mistura Olei Morrhuæ et Ætheris.*
 R Mist. Ol. Morrhuæ..... f 3 j
 Ætheris..... m xvj
 M. Dose, one to four teaspoonfuls.
19. *Mistura Olei Morrhuæ et Calcis Lacto-Phosphatis.*
 R Olei Morrhuæ.....
 Mucil. Acaciæ.....aa f 3 ij
 Fiat emulso et adde—
 Syrupi Calcis Lacto-phosphatis.. f 3 ss
20. *Mistura Hyoscyami et Morphia.*

R Morphia Acetatis..... gr. ¼
 Tr. Hyoscyami..... f 3 iss
 Syr. Tolutanæ..... f 3 ijss
 Aquæ..... f 3 ss

M. Dose, two teaspoonsful.

21. *Mistura Ammonii Chloridi.*

R Ammonii Chloridi..... xx
 Aceti Scillæ..... f 3 j
 Mist. Glycyrrhizæ Comp..... f 3 viij

M. Dose, two to four teaspoonsful.

22. *Mistura Cinchonæ Acida.*

R Cinchonæ Sulphatis..... gr. iv
 Acidi Nitromuriatici Dil..... m xij
 Aquæ Cinnam.....q. s. ad f 3 j

Ft. sol. Dose, a tablespoonful in water, before meals.

NEWS ITEMS AND NOTES.

Personal.—The University of Vermont has conferred the degree of L. L. D., on Prof. Wm. A. Darling, and Albion College, Mich., has honored Prof. E. W. Jenks in the same manner.

Royal College of Surgeons of England.—At a meeting of the Council, on the 10th, instant, Mr. Luther Holden of Gower Street, Bedford Square, Senior Surgeon to St. Bartholomew's Hospital, was elected President of the College, in the vacancy occasioned by the retirement of Mr. John Simon, C. B., F. R. S.; and Mr. J. E. Erichsen, F. R. S., of Cavendish Place, Surgeon to University College Hospital, and Mr. Erasmus Wilson, F. R. S., of Henrietta Street, Cavendish Square, were elected Vice-Presidents for the collegiate year. At this meeting of the Council, the recently elected members of it—Messrs. John Wood, F. R. S., Henry Power, and Jonathan Hutchinson—made the necessary declarations, and took their seats. The several professors and lecturers were re-elected.

Fur on the Tongue.—The above title has been given by Mr. Butlin to a paper recently read before the Royal Society, and now published in the *Proceedings* (No. 195) of that learned association. In this short memoir, Mr. Butlin describes the relation of the fur to the papillæ of the tongue, and the character of the organic germs of which that fur is almost entirely composed; for the epithelium constantly observed in tongue-scrapings, viewed under the microscope, is not essential: "depending," as the author expresses it, "rather on the vigour with which the tongue is scraped than upon the amount of fur present." The fur is found most abundantly immediately in front of the circumvallate papillæ, behind which it is not deposited. The fungiform papillæ are generally free from fur in childhood, and, owing to their smooth surfaces, are less thickly coated in the adult than the filiform papillæ, which, owing to their roughness and their epithelial processes, readily hold foreign bodies. In every case in which there is fur on the surface of the tongue, schizomycetes are found; and Mr. Butlin even observed "a little of the glæa where no fur was perceptible to the naked eye." Thin grey fur resembles the thin grey pellicle which forms on

Bacterium-producing fluids. This pellicle becomes white and more opaque as it grows thicker; the fur on the tongue undergoes the same changes when deposited in unusual abundance. After cultivating portions of fur on a warm stage, several fungi were discovered, two constantly present, and these were *micrococcus* and *bacillus*. In all the author's experiments, the development of *micrococcus* went on freely during cultivation, excepting in one instance, when "so rapid a formation of *bacterium termo* took place that, in the course of a few hours, the whole of the fluid was clouded and obscured by its presence." This fact reminds us of Mr. Watson Cheyne's recent researches. But Mr. Butlin states, immediately after the above quotation, that "usually the development of other fungi does not interfere with that of *micrococcus*." It appears to be otherwise with *bacillus*; for, though constant in the fur put under cultivation, it seldom or never developed, the presence of other fungi appearing to keep it down most effectually. This was, of course, under artificial conditions; but on the tongue *bacillus* evidently thrives, or it would not be so constantly found there. In some specimens of fur, *sarcinae* and *spirilla* were found and were readily cultivated. At a period when these strange organisms are exciting so much attention in the scientific world, Mr. Butlin's researches cannot fail to be of value, especially to all interested in the great antiseptic debate.

Medical Perils.—The *Berliner Klinische Wochenschrift* draws attention to the fact that, when the committee which had been sent from Vienna for the purpose of studying the plague in Russia arrived at Vetlianka, almost every member of the commission suffered from swelling of the cervical glands. Professor Biesiadecki, who a few days before had touched a girl in whom the bubo had not yet been opened, was taken seriously ill. His temperature rose considerably, hæmoptysis set in, and a bubo of the size of a hazel-nut was developed in the right groin, but disappeared in the course of a week.

A New Elastic Suture.—The following elastic suture is recommended by Dr. Vogel for closing a gaping artificial wound, and for drawing the edges of the latter together. Wide strips of sticking plaster are placed on both sides of the wound, from one to two inches from the edge. Several small holes are then made in that portion of the strips which is near the edge of the wound, and small-sized studs are placed into the openings. A narrow India-rubber band is then laid across the neck of two opposite studs, slightly tightened, and fastened. This new suture is said to have answered very well in cases where the metallic suture either caused suppuration or could not be applied because the edges of the wound were too far distant.

Poisoning with Anilin.—The Polish journal *Meelgeynä* relates the following case. A chemist was making experiments with anilin, when the vessel burst; part of the contents was poured over his clothing, while the remainder was evaporated in the room. A few hours later, a feeling of weakness in the muscles set in; the patient became comatose; his speech was affected, and he had forgotten a number of words. Stimulants were freely given, and the patient soon became better; but the muscu-

lar weakness remained during the following day. The fact, that the symptoms of poisoning only appeared some hours after the explosion had taken place, proves that the anilin penetrated into the organism through the skin.

Cremation.—The Municipal Council of Udine has lately published a decree in which it declares that, after having duly weighed and considered the advantages and drawbacks of cremation *versus* interment, it has come to the conclusion that the former is in every respect preferable for the following reasons: 1. In a hygienic point of view it is undoubtedly the best way of disposing of dead bodies. 2. It is a mark of progress, because by making cremation optional, the individual is at liberty to choose between the two modes of burial. 3. Considered from a scientific, social, religious, and sentimental point of view, no valid reasons can be brought forward against it, while many very good reasons might be quoted for it. 4. The expenses would not be heavier than those of an ordinary burial. Cremation has been long introduced, and is carried out at Milan as at Gotha. It is now also officially authorized in Paris.

Prizes of the Royal Academy of Medicine of Belgium.—The following is the programme of prize questions for the Royal Academy of Medicine of Belgium. Furnish the history of Stricture of the Urethra in Man, from the point of view of the Etiology, of the Pathological Anatomy, and of the relative value of the different plans of Treatment recommended; the prize is a medal of the value of 800 francs (£32); essays are to be sent in on January 1st, 1880. The history of the Diseases of the Nervous Centres and principally of Epilepsy; the prize is 5,000 francs (£200); the competition closes on April 1st, 1880. Determine, with the help of precise clinical observations, the effects of Alcoholism, both material and psychical, on an individual and on his offspring; the prize is a medal, value 1,000 francs (£40); essays are to be sent in by July 15th, 1880. Make a comparative study of Rickets, Osteomalacia, of Fragility of the Bones—their etiology, symptomatology, nature and treatment, in domestic animals, and add, as far as possible, to the essay specimens of pathological anatomy in support of the opinions expressed; the prize is a medal, value 800 francs (£32). Determine the nature of the influence of Innervation on the Nutrition of the Tissues; the prize is a medal of 1,000 francs (£40); essays must be sent in by January 1st, 1882. The memoirs must be unpublished, and anonymous, and legibly written in Latin, French or Flemish, and addressed, free of carriage, to the Secretary of the Academy at Brussels.

A Parasite on a Diatom.—A French microscopist has announced the discovery on the person of the minute pinnularia, of an exceedingly active, vigorous, and agile diatom. This says, one of our American contemporaries, puts the French ahead. It is now in order for a German microscopist to detect some wild beast or jungle-plant on this parasite, otherwise French microscopy will stand triumphant. As Hudibras says,

"Big fleas have little fleas upon their backs to bite 'em,
And little fleas have lesser fleas, and so *ad infinitum*."

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and interest of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CLINICAL LECTURE DELIVERED AT
THE PENNSYLVANIA HOSPITAL.BY
D. HAYES AGNEW, M.D., LL.D.

Professor of Surgery and of Clinical Surgery, in the University of Penn.

- I. PISTOL SHOT WOUND OF THE HAND. II. LUXATION OF THE ANKLE. III. FRACTURE OF THE CLAVICLE. IV. INJURY TO THE SHOULDER. V. STERNO-CLAVICULAR LUXATION. VI. HIP-JOINT DISEASE.

(Reported for THE HOSPITAL GAZETTE.)

PISTOL SHOT WOUND OF THE HAND.

This patient met with this accident last evening. All the mark that the ball has left behind to indicate its progress is a small aperture in the side of the little finger. There is no wound of exit, from which fact we may infer that the ball has lodged in the hand.

I need hardly say that it is impossible in such a case as this to find out the direction from which the wound was received. Even when the patient is better able to assist in the inquiry than is the case here it is very hard to analyze the exact manner in which a wound has been received.

Perhaps the ball has passed into the palm of the hand. I will introduce a probe and try to find where it has lodged, but I find that even the probe can render no assistance. In a great many cases such as this we can fix with some exactness upon the site of the foreign body by making pressure at different points until we come across a tender spot. There is one such spot here. The little finger is numb. This is somewhat of a guide to us in determining the course of the ball for it must have touched the ulnar nerve which supplies the little finger.

A small ball, such as this one must have been, is very difficult to follow, for the tissues which it separates close up again. The probe which I used just now went up toward the palm of the hand. In using a probe in such instances the very gentlest manipulation is necessary otherwise the instrument may very easily get out of the right track.

I think that we have settled pretty definitely that the ball is somewhere in the palm of the hand. An operation in such a case, where we have no sure guide as to its locality, would be very unwise.

The result of this injury will be either (1) that the ball will become and remain encysted, or (2) what is more probable in this locality, that an abscess will form which must be opened. I shall tell the man to keep his hand enveloped in a cloth wrung out of lead water and laudanum, and to let it remain perfectly quiet on a splint until something develops.

The reason I say to keep it on a splint is to prevent contraction, for a ball is very likely to produce contraction of the palmar fascia, or of the tendons.

LUXATION OF THE ANKLE.

Anterior and posterior luxations of the ankle-joint are uncommon. Here the tibia is luxated forward and the foot backward. The tibia in these cases is usually carried in advance of the astragalus, or rather, beyond it and rests on the scaphoid, cuboid, or cuneiform bone.

As you see the foot now there is no deformity, as the reduction has been effected. The usual symptoms of the accident are an apparent shortening of the dorsal portion of the foot and an elongation of the heel. The lateral ligaments are always more or less lacerated.

This luxation should be reduced by flexing the leg and then extending the foot, pulling it forward while you pull the leg back.

The simple fracture-box dressing is the best where there is no tendency to a recurrence of the luxation. The heel should be protected by a pillow and the foot secured to a foot board. Although there is a great deal of discoloration present it does not amount to that produced by a fracture.

FRACTURE OF THE CLAVICLE.

This injury was received a few days ago. It was produced by a fall in the course of which the woman received a blow on the anterior part of her shoulder. The fracture has taken place at the acromial extremity of the clavicle and the course of the first curve on the acromial side. The fracture generally occurs at the summit of the angle, and is more frequent near the sternal than near the acromial end.

This fracture is one of the most difficult to treat without some resulting deformity. That the parts may be maintained in perfect apposition, the patient must be kept flat on her back with the hands crossed on the chest and with her head just a little elevated. In this position we are able to prevent any movement of the scapula. Indeed, if we could permanently fix the scapula, we would at once have solved the problem of treatment in this fracture, but, unfortunately, it is utterly impossible to treat this fracture continuously by position alone, unless a nurse be secured to keep watch all the time, day and night, and so forestall the slightest tendency to move on the part of the patient. Of course, this cannot always be done.

Thus far, no apparatus has been invented which can do the work properly, and so I usually treat by keeping the patient in the position described above for the first few days, unless restlessness comes on, for I know that if I can only hold the bones in place for a few days, they will have lost, to a large extent, their disposition to get out of position, and that the ends of the bone will have become imbedded in plastic matter and will have had time to become rounded off. Then, at the end of this time, I put the patient in restraint by means of a permanent apparatus.

In the first place, I introduce an axillary pad which accomplishes two things, viz., (1) elevates the arm, and (2) holds the shoulder up, the disposition of the shoulder, of course, being to fall downwards, inwards and forwards. This axillary pad should be

wedge-shaped, and should be about five inches long and four inches wide, tapering rapidly to a point. You should then take two strips of adhesive plaster, three and a half inches wide, and long enough to pass entirely round the body, and to form besides a loop to be slipped over the arm. The first is so applied as to carry the arm inwards, and while thus bringing the elbow to the side of the body—the wedge acting as a fulcrum—the strip will pry out the acromial end of the fragment. The second strip, with a small opening in the middle for the olecranon, after being placed over the latter process of bone, is carried to the opposite shoulder, and the ends curved so as to keep the arm upward and backward.

It is sometimes better, in applying this dressing to a woman, to carry both the bands below the breast.

If you are obliged to renew this dressing at any time, you will find it better to put a new one on top of the old one rather than to run the risk of taking the first one off.

INJURY TO THE SHOULDER.

This man tells me that he fell on his shoulder. The first thing I do is to examine for a luxation. There is evidently no luxation of the shoulder, for we find the usual rotundity of the parts, whereas, if there were a dislocation, the shoulder would be flattened. So, too, I find the acromion close up to the head of the bone, whereas, if there were any luxation, we should find some space under the acromion, due to the fact that the head of the bone has vacated its proper position.

The arms fall to the side perfectly here. This would not be the case if there were a luxation. We might have a fracture, but where this has taken place, there is always a good deal of swelling. There is no such swelling here, nor is there any crepitus or pain upon movement.

In examining for fracture of the clavicle, I find that the line of that bone is unbroken.

There seems to be some local pain at the acromial end of the clavicle. There is also a little dry crepitus here, but he has perfect power over the deltoid muscle, which antagonizes the view that there might be any disease at the acromial end of the clavicle. Luxation of the acromial end of the clavicle always prevents a patient from raising his arm.

Probably there was some contusion received which was followed by slight synovitis. I shall tell the man to carry his arm in a sling and to apply some evaporating lotion to the shoulder.

STERNO-CLAVICULAR LUXATION.

Running my finger along the line of the clavicle I find an unusual prominence on the right side. This is due to some severe injury of the sterno-clavicular articulation. I do not think there has been any luxation. A partial displacement, such as this, is not very uncommon. It is the result of undue force applied to the shoulder. The original cause of this state of things must have been an inflammation of the joint which produced softening of the ligaments and thus it became possible for this par-

tial luxation to occur. The arm should be placed in a Velpeau for at least ten days.

HIP-JOINT DISEASE.

This child has had a slight limp for the past six months. During the past three months she has been confined to the house and kept on her back. You notice that she has dark hair, dark eyes, and dark eyelashes, and that her complexion is almost transparent, as is frequently the case in patients suffering from articular disease.

Placing the child on her back, on the forum table, on examination I find slight atrophy of the right leg. The left leg can be flexed and extended in a perfectly free and easy manner, and does not carry with it the pelvis. When I attempt to lift the right leg I encounter great muscular resistance. The pelvis moves with the leg. That means that nature has immobilized the joint by means of muscular rigidity, in order to prevent motion of the joint surfaces.

Not always, but generally you find a marked modification in the conformation of the limb. In the first stage of the disease, the affected limb is everted, flexed, and somewhat advanced. The buttock is also more flattened than its fellow. The crease, too, which marks the gluteo-femoral fold on the opposite side is obliterated. Forcible pressure on the trochanter of the diseased side often will cause the patient to cry out. The same effect may be produced by striking on the heel, or knee, of the leg on the diseased side.

I never attempt such tests. They often do great harm. Other signs are usually present and are quite sufficient to satisfy me of the nature of the disease.

There are various methods of treatment. (1) The recumbent position. (2) The erect position, (a) When the patient is allowed to move, and (b) when the patient is kept quiet.

Occasionally patients can not walk, and then we have to treat them in the recumbent position. I believe in only that treatment which fixes the diseased joint. I believe in walking, but not in that kind of walking which causes either friction or motion of the affected joint. You can not keep up the motion of the joint without increasing the function, and consequently the inflammation, of the articulation.

The old American method of treating coxalgia, or that of Physick, consisted in adjusting to the limb a curved splint in order to secure fixation. Such an appliance, however, did not allow of walking—a better plan is to secure the immobility of the limb by a splint which may be applied either on the outer or the posterior aspect of the leg, thigh and body. Raise the sound limb by means of a cork-soled shoe, and place the patient, if sufficiently old, upon crutches. This plan, which is that of Thomas, has the advantage of fixing the diseased joint, preventing the patient from resting upon the affected limb, and admits of exercise in the open air.

If you begin treatment early, you may succeed in aborting the disease. When this child has been taught how to move about on crutches, I shall apply, before you, a splint to the posterior surface of the affected limb.

ORIGINAL ARTICLES.

CASE OF OVARIAN CYST REMOVED UNDER CARBOLIC SPRAY—DEATH ON THE SIXTH DAY FROM INTENSE CONGESTION OF THE LUNGS, WITH SLIGHT PLEURISY.

BY
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Member of Boston Gynecological Society, &c.

In October, 1876, Mrs. G. B. E., of Binghampton, N. Y., consulted me regarding an enlargement of the abdomen, which had given her much anxiety of late. She gave the following history: Aged 26; married a little over three years; has had two children, the first born 15 months, the second 28 months after marriage; both dead, the last having died ten days since. Her mother died under thirty, of what was believed to be an ovarian tumor. No operation done. Father living. No sisters. Has half-brothers living. Has an aunt living who has suffered a long time from what has been called a fever sore. Mrs. E. now presents a good, ruddy expression of the face, and in every way gives evidence of excellent health. Around the abdomen, at the umbilicus, she measures 41 inches, and the other measurements show more of an enlargement of the left side of the bowels, and it is here she first noticed the "fulness," nearly eighteen months since. Fluctuation, position, examination per vaginam, also use of sound, all go to show the case to be one of ovarian tumor, and probably connected with the left ovary. Urine normal, and bowels quite regular. In consideration of her general good health, I advised Mrs. E. to return home, have the cyst tapped when it became too burdensome, try pressure and wait for a time before submitting to an operation. Soon after her return she was tapped by Drs. Burr, Carr and Brown, of Binghampton, and 10½ lbs. fluid by trocar removed. This, on examination, was pronounced to be ovarian in character. This tapping afforded her much comfort, and was not followed by any symptoms of inflammation. However, the sac gradually filled, her health remaining excellent, and at the end of the seventh month she was tapped a second time, by Drs. Burr, Low and Griffin, the aspirator being used, and 28½ lbs. water obtained.

In the following six months the disease seems to have rested so much that her friends were hopeful of her recovery. But in the latter part of October, 1877, the sac began to fill quite rapidly, and her health was not so good. Dr. Griffin now ordered her Blancard's Iodide iron pills, and also made use of the abdominal rubber bandage. Her strength improved soon after, and it seemed the bandage was really holding the enlargement in check.

The latter part of December, it was thought best to try tapping again, but the fluid had disappeared to such an extent that tension of the sac was insufficient for introduction of the needle, and only half a pint was obtained.

She now remained in fair health until June, 1878, when the sac began filling quite rapidly, and a full

operation was hinted by her family physician, Dr. Griffin.

Aug. 1st I was consulted by her husband, who gave me many of the foregoing facts. Her health was stated to be good, and she was anxious to have a complete operation done. On August 20, 1878, Mrs. E. came to the city, and with Dr. N. L. Lewis, I made a careful examination of the case. The abdominal walls were much distended, fluctuation distinct, sound passed 2½ inches into cavity of uterus, no apparent adhesion in cavity of pelvis. She had lost quite a good deal in flesh, had an unpleasant, annoying cough, which, by Dr. Griffin, was thought to be due to the pressure against the diaphragm. She measured about the umbilicus, 43 inches, was wearing the rubber bandage for the support it afforded, could get about the room only with difficulty. There were distinct mucous râles over the upper portion of the left lung, which gave us some anxiety. Mrs. E. was determined to have the operation done at once, would not allow of another tapping, and said her cold was of no consequence. Urine healthy, had just recovered from normal menstruation.

A good sized airy room in a private house was secured and an experienced nurse taken from the hospital to care for her and on Aug. 22nd, assisted by Drs. N. L. Lewis, W. H. Bailey, T. K. Perry and medical students Voorhees and Hickes, I proceeded to operate.

An incision was made commencing an inch below the umbilicus extending downwards three inches, through the abdominal walls and exposing the surface of the tumor.

The hand was passed along between the abdominal walls and tumor and no adhesions were found.

The sac was then punctured and a quantity of dark, serous looking fluid was removed. The tumor was now found to be multilocular and the incision was extended to the umbilicus. Another sac was tapped, closing the incision in the first, and the two brought out through the opening when it was discovered that strong adhesions existed between the omentum and the sac. These adhesions were separated from the surface of the tumor and the vessels were secured by two catgut and three silk ligatures cut short. The sac was now lifted out of the abdominal cavity and a pedicle of fair length was found connecting it with the left Fallopian tube and left ovary.

The pedicle was secured by means of Wells' clamp.

Six deep sutures were passed through the abdominal walls and peritoneum and four superficial ones for closing the incision.

The whole operation was done under the antiseptic spray, using Weirs & Hank's steam atomizers. A rubber blanket was held before the patient, at some distance from her face to prevent as much as possible the inhalation of the carbolized spray. She was under the effects of the ether a little over an hour and recovered rapidly from it. The sac weighed one pound and the fluid nearly 40 lbs.

In the evening she appeared cheerful, cough somewhat annoying. Temp. 99½, pulse 108, urine secreted freely, drawn with catheter every 6 hours by

nurse. She was given 2 grains quinine three times daily and $\frac{1}{8}$ gr. morphine every four hours.

This treatment was not varied much for the following five days.

She took a fair amount of nourishment and aside from the cough was very comfortable. Her temperature up to the evening of the fifth day did not go above 101. At this time there was an increase to 103.

In the afternoon under carbolic spray all the superficial and deep sutures in abdominal wounds were removed and union found to be complete. Clamp doing nicely. No strain. No distention of abdomen.

Part of the dressing under spray had been changed on the 3d day.

She complained very much of the smell of the carbolic acid and several times told me she thought it did her lungs harm. During the night after the fifth day, she passed some blood with her urine and there was a slight appearance of blood from the vagina.

On the evening of the sixth day, she was not so well. There was an anxious appearance of the face, an intense pain in right side, (evidently pleurisy) while the temperature had increased to 105 and pulse from 130 to 140. Hypodermic injections of morphine afforded some relief but she gradually sank and died at 11 A. M., Aug. 28th, six days from the time of operation.

Post mortem made five hours after death showed complete union of incision, pedicle was adherent within the lips of the wound and nearly separated at point of constriction by clamp. Ligatures controlling vessels in omentum were nicely covered by lymph, no appearance of peritonitis, no fluid in cavity of pelvis. No pus found anywhere. Kidneys intensely congested. Liver healthy; thorax, right lung very much congested, also slight pleurisy and beginning adhesions at lower part. Left lung, upper third in the first stage of pneumonia, while the remaining portion was intensely congested. Heart normal. Brain not examined.

In this case, did the carbolic spray increase the congestion of the lungs? I have sad misgivings over having done the operation when the patient presented the evidences she did as to the trouble about the left lung. By her urgency she overcame our objections.

Did the carbolic spray as inhaled have anything to do with poisoning the blood and causing the bloody urine that was voided?

These are all serious points for careful consideration.

HOSPITAL RECORDS.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

SERVICE OF JAMES H. HUTCHINSON, M. D.

(Prepared for THE HOSPITAL GAZETTE.)

PERICARDITIS, WITH PLASTIC PLEURISY.

S. R., æt. sixteen, colored, single, domestic, born in Pennsylvania; admitted January 26th, 1878. Her

mother died of dropsy, and one sister of consumption, but the rest of the family history is good, so far as it can be obtained. The patient was well until two years ago, when she had what appears to have been a slight attack of rheumatism, which affected her ankles and knees. This did not confine her to bed, but ever since then she has noticed slight palpitation of the heart after any exertion. Menstruation began at the age of thirteen years, and since then has been regularly performed. This last winter she has been exposed a good deal to cold and wet, as she has had a great deal of washing to do, and has frequently had wet feet. On the 17th of the present month (nine days before admission) she began to experience slight pain in the ankles, and by the 20th almost every joint in her body was painful. She had also pain in the cardiac region, with dyspnoea. At this time she felt so ill that she was compelled to go to bed. Since then her symptoms have been slowly growing worse. The foregoing history is necessarily imperfect owing to the condition of the patient.

Upon admission the patient has high fever—105° is her temperature. Her pulse is 136; respirations 72. The respiration is panting and shallow. There is some pain and swelling in both hands. Owing to the rapidity of the heart's action, physical examination is rather uncertain in its result. There appears, however, to be a systolic murmur at the apex and a friction murmur over the body of the heart. This latter murmur is confined to a very small area. The apex beat of the heart is slightly pushed up, but there appears to be but little increase of the cardiac dulness.

January 27th.—The patient is constipated. Ordered Rochelle salts, 3 j, in water; to be repeated every hour until the bowels are opened.

Infus. digital., f 3 ij, ordered four times daily.

R. Sodii salicyl., gr xx.

Spts. Lavendulæ comp., f 3 iss.

Glycer., f 3 j.

Aquæ, q. s., et ft., f $\frac{3}{4}$ ss.

M. Et ft. sol.

Sig. Every hour in the morning until six doses have been taken.

Also ordered emplastr. cantharid. 4x4, over heart.

Urine cloudy, acid, sp. gr., 1010, about $\frac{1}{24}$ of its bulk albumen. Microscope shows pus cells, squamous and pavement epithelium, and a few granular and hyaline casts.

January 28th.—Much better. Temperature 101°, pulse 142, respirations 62. She sweated a good deal during the night; tongue dry and much coated. Temperature 102° in the evening.

January 29th.—Pulse down to 92 this morning. Infus. digitalis f 3 ij. t. d. The other treatment continued.

Evening.—Complains of a slight pain in the right side, particularly upon taking a long breath.

January 30th.—Slept a good deal last night, and feels pretty comfortable this morning. Respirations 44, temperature 103°. Digitalis infus. f 3 i every three hours; salicylate of soda, gr. xx, four times a day.

January 31st.—The murmur this morning was heard both at the apex and left base.

Evening.—A good deal of restlessness and de-

lirium, and seems weak. Vomited this afternoon; has no cough, but complains of pain in the right side upon taking a long breath. On examination, marked friction is heard over the right side of the chest posteriorly, with dullness on percussion. Ordered dry cups.

February 1st.—Temperature 104° this morning, pulse 92 and very feeble. Had some bloody expectoration this morning, with some cough. Friction upon the right side, as well as dullness, seems to be more marked than yesterday. Ordered dry cups to the right side. All other treatment stopped, and potass. nitratis, gr. iij; quiniæ sulph., gr. j; pulv. Doveri, gr. ij; ext. digitalis, gr. ss, given every three hours; whiskey, f $\frac{3}{4}$ ij, daily.

February 2d.—Pulse 130 and feeble. Pain in right side and pain when she takes a long breath.

February 3d.—Patient seems rather better. Treatment continued. Whiskey, f $\frac{3}{4}$ iv, given in twenty-four hours.

February 4th.—Patient seems a little stronger. There is still marked friction over both lungs posteriorly and a small patch of pneumonic consolidation at right base posteriorly.

February 5th.—Was called suddenly to patient at 7:45 this morning, and found she had just died. The night nurse reports that she was comfortable during the night and seemed fairly strong early in the morning, but that she sank very suddenly at time above mentioned. All attempts to stimulate her failed, as she almost immediately became unable to swallow.

Post-mortem examination by Dr. Morris Longstreth: made seven and a half hours after death.

Rigor mortis marked; abdomen distended, slightly emaciated.

Cavities.—Abdominal cavity contained considerable serum, in which were large chicken fat clots of lymph; peritoneum smooth and shining; no adhesions; liver extended two inches below the ensiform cartilage and one inch below ribs in line of right nipple; diaphragm stood at level of fourth interspace.

Pleural cavities showed numerous new and old adhesions. There was considerable effusion of serum, with flocculent lymph, especially at the right base.

Pericardium distended, with lymph and serum; the lymph was nearly one-half inch thick, and was firm and adherent, enclosing in its meshes considerable yellowish serum; the sac had its walls thickened.

Heart.—Right side distended; left firmly contracted; right auricle filled with fluid blood and large soft clot; right ventricle, with pretty firm fibrin about the valves; tricuspid opening of normal size; left auricle had firm white clot attached at mitral orifice; left ventricle empty and contracted.

The pulmonary and tricuspid valves were smooth, with no thickening, but both were milky white. The aortic leaflets were opaque, and along the areas of contact, on their ventricular surfaces, were roughened and showed numerous small vegetations, stained blood-red. The mitral valve was so firmly blocked by a large white clot adherent to the auricular surface of the leaflet, that considerable force was required to remove it. The areas of con-

tact of the valve were roughened and covered with blood-red vegetations. The area of roughening measured several lines in width and entirely encircled the orifice. The rest of the valve was milky in appearance. The heart weighed twelve ounces. Its left ventricular wall measured three-quarters of an inch at the middle part; right wall, three-eighths of an inch.

Lungs small and less crepitant than normal; the lower lobe of the right lung was dark-colored and firm; the rest, except a portion of the posterior left lung, of normal color.

Right Lung.—Lower lobe carnified, upper lobe mottled and exudes abundant frothy serum.

Left Lung.—Lower border posteriorly over small area collapsed; rest fairly crepitant.

In right lung, small areas of pneumonic consolidation apparently.

Glands at root of lung and above pericardium much enlarged.

Spleen small and dark-colored; mottled on surface by adhesions; patches resemble commencing embolic infarction; weight four ounces.

Liver.—Weight four pounds three ounces; much congested, normal in appearance—rather softer than normal; not granular.

Gall bladder nearly empty.

TRANSLATIONS.

ON THE CHEMICAL PHENOMENA OF DIGESTION.

BY
CHARLES RICHET.

SALIVARY, GASTRIC, PANCREATIC, BILIARY, AND
INTESTINAL DIGESTION.

Translated from the "*Revue des Sciences Médicales*," for THE HOSPITAL GAZETTE.

The advancements made during the last ten years in physiological chemistry have been considerable, but we must not be deluded by the results obtained. From the point of view of profound and satisfactory knowledge of the phenomena, the results are quite mediocre. Moreover, in giving in this place the *résumé* of contemporary researches on the chemistry of digestion, we shall more often be obliged to explain how questions have been proposed than how they have been solved. Besides, as we believe that theories, to-day probable, will in a short time become ridiculous, we shall neglect the hypotheses and confine ourselves to the facts, which are numerous and sometimes important. We will only occupy ourselves with the chemical phenomena of digestion, without treating of the physiological modifications of the secretions under the influence of nervous, physical, and other excitations.

(A.) *Saliva and Salivary Digestion.*—Since the splendid works of Claude Bernard and of Schiff, few researches have been made on the chemical functions of the saliva.

There exists in the saliva a ferment (salivary diastase or ptyaline of Mialhe) that has not yet been extracted completely pure. Indeed, as in the case of pepsine and of pancreatine, it seems that the ordinary methods of purification alter the ac-

tivity of the ferment, or, in other words, destroy it. For an inactive ferment is an absurdity, and its activity should be in direct proportion to its purity. Now, up to the present, researches, undertaken with the idea of obtaining the ptyaline pure and active have not yet been accomplished. (Cohnheirn.)

This ferment acts on amylaceous materials, which it transforms into sugar. This action is not, as might be believed, general and characteristic of saliva. Indeed, in the newly-born, the saliva has no diastatic power, which easily explains itself by the absence of amylaceous aliments in the first alimentation. However, all authors do not agree as to the time when the diastatic ferment appears. According to Zweifel, it is in the second month after birth that the submaxillary glands of the infant begin to have a diastatic power. M. Moriggia thinks the same. Nevertheless, this opinion is not that of every author. M. Korowin thinks that from the first days of life the saliva possesses the sugar-making property. This activity of the saliva keeps increasing until the age of one year, the epoch at which it attains its maximum.

Thus the question is not yet absolutely settled.

The saliva of the dog does not transform starch into sugar, and it appears that in the horse it has no diastatic ferment. It is in the rodents, and in particular the Guinea-pig, that the saliva appears to have its maximum activity. Man occupies an intermediate position, and his saliva, more active than that of the dog, is less active than that of rodents.

The temperature at which the salivary diastase acts most rapidly is 35°C. according to Kühne, 38 to 41°C. according to Paschoutin. The same author, studying comparatively the action of the extract of malt and of ptyaline on starch, found that the maximum activity of malt was at 70°; its action was very feeble at 50°, while ptyaline is most active at 40°.

Saliva being feebly alkaline in the normal state, many authors have thought that the sugar-making action of ptyaline required an alkaline surrounding, and indeed this opinion has always been repeated in classical works. Nevertheless, it is not true, as Schiff showed long ago.

I have made some experiments on this subject and have been able to prove that in a slightly acid medium (1 grain of HCl to 1,000) saliva transformed starch more rapidly than in a neutral or feebly alkaline (1 grain of NaO to 1,000) medium. This fact is not without importance, since the saliva mixed with the gastric juice may, under these conditions, act very well on starch, and in the stomach the salivary digestion may continue to operate.

Recently, Astaschewsky, studying the reaction of parotid saliva in man, has admitted that this reaction in the normal state was slightly acid, but that this acidity rapidly disappeared as soon as the salivary liquid was agitated. Thus he attributes the acid reaction of the saliva to the carbonate of lime which is decomposed by the air and yields carbonic acid. If, instead of slowly collecting the parotid saliva, the sensitive nerves of the buccal mucous membrane are excited, the collected saliva is scarcely acid and even alkaline, which, according to Astaschewsky, would explain the opinion held by all physiologists on the activity of the saliva.

As Claude Bernard showed a long time ago, the pure saliva of each salivary gland is less active than the mixed buccal saliva, in which quantities of epithelial *debris* from the mucous membrane are in suspension. The role of these anatomical elements in the salivary secretion has not been studied and deserves to receive attention, for it might be possible that all the sugar-making power of the saliva was due to them. On filtering the saliva, which removes from it a certain quantity of organic *debris*, and which, moreover, requires sometime, a less active liquid than the non-filtered one is obtained. According to Bechamp, the transformation of starch into sugar is entirely due to these elements.

This opinion is rendered to a certain degree plausible, by the well-known fact that all the mucous membranes of the organism have a saccharific power (except perhaps the stomach mucous membrane). Besides, if instead of examining the transformations of starch, we study the transformation of glycogenic matter which is much less stable, it is not only the mucus secretions which have a saccharific power, but even all the albuminoid substances. (Seegen and Kratschmer).

There must probably then be recognized in the salivary secretion, two elements whose relative quantities are unknown. Ptyaline properly called, or salivary ferment precipitable by the basic phosphate of lime, and the epithelial ferment which is developed when the pavement epithelial scales are placed in contact with an amylaceous substance. But in order to properly elucidate this difficult point, numerous researches will be necessary.

This transformation of starch into sugar is not so simple a phenomenon as one would be led to suppose. Indeed, between starch and glucose, there are probably intermediate conditions difficult to distinguish. According to Zawilsky, cited by Hoppe-Seyler, dextrine is not transformed into sugar by ptyaline.

Nasse holds that the action of the diastatic ferment on starch does not produce a true glucose. It dissolves in the reagent of Barfoed, which enables us to distinguish glucose from maltose and lactose. A solution of acetate of copper in dilute acetic acid is reduced by glucose, but it is not reduced by the other sugars. The sugar formed by the salivary digestion of starch has been named by Nasse ptyalose, and he distinguishes this ptyalose from the acchroodextrine of Brucke, which forms at the same time. If instead of taking starch we take glycogen, we have a glycogen-ptylose which differs from amyloptylose, which reduces Fehlings liquor but which does not act on the acetate of copper in acetic solution.

These varieties of sugar are quite similar to the maltose of Dubrunfaut, though they could not be identified by him.

Other authors have also endeavored to ascertain the transformation of starch by the salivary ferment. In a short note, not very explanatory, Mering and Musculus held that saliva transformed starch and glycogen into dextrine and into maltose, without there being the production of glucose. On the contrary, the pancreatic ferment transforms starch and glycogen into dextrine, maltose, and glucose.

In a later work, Musculus and Gruber admitted a reaction still more complicated; the substances derived from starch were the following:

Soluble starch. Rotary power, $\alpha = + 218$.

Erythrodeutrine.

(Colored red by iodine.—Slightly attackable by diastase.)

Achroodeutrine x. p. r. $\alpha = + 210$

Achroodeutrine c. p. r. $\alpha = + 190$

Achroodeutrine r. p. r. $\alpha = + 150$

Maltose

($C^{12} H^{22} O^{11} + H^2 O$) p. r. $\alpha = + 150$

Glucose

($C^6 H^{12} O^6 + H^2 O$) p. r. $\alpha = + 56$

Evidently all these substances, nearly allied in their composition as in their properties, cannot be isolated in a state of complete purity, and these determinations are only approximative. It is interesting to see how the rotatory power diminishes according as the transformation of the starch progresses.

MM. Musculus and Gruber conclude from their experiments that starch is a very complex substance, probably having a formula like $n(C^{12} H^{22} O^{11})$, in which n represents 5 or 6 molecules. The action of diastase and of dilute acids destroys this molecule and gives the different isomeric bodies indicated above.

One point, which has not been studied is the inversion of cane sugar by the saliva. Hoppe-Seyler holds that the saliva does not change cane sugar, but it is doubtful that the experiment has been made. Indeed, it gives very clear results and entirely different from those that would be admitted *a priori*. If we take a piece of very pure cane sugar, and if we masticate it some time, at the end of three or four minutes, the saliva contains notable quantities of glucose, and abundantly reduces Fehling's liquor. I have repeated this experiment on divers persons, and in all I have proved that the buccal saliva (mixed) had a very notable convertive power. It is impossible to say whether this ferment is a special ferment, or ptyaline, or an epithelial ferment common to all the mucous secretions.

The different salivas have a different constitution and different chemical properties. It was Claude Bernard who first indicated these differences. Giannuzzi and Heidenhain have developed these researches by showing that excitation of the great sympathetic occasioned the dehiscence of the cells contained in the salivary *cul-de-sacs*, and increased the proportion of solid matters contained in the saliva.

We here give a table indicating the centesimal composition of the saliva, according to the already old analysis of Cl. Bernard, and the recent ones of Hester, published by Hoppe-Seyler.⁽¹⁾

	Mixed Saliva.	Sub-maxillary Saliva of the Dog.	Parotid Saliva.
Water.....	994.6	993.	991.0
Solid Matters.....	5.4	6.5	9.0
Soluble Organic Substances.....	2.	2.	6.
Sulphocyanide of Potassium.....	0.1	4.5	0.3
Mineral Salts.....	1.6	4.5	4.2

(1) This table is somewhat schematic. But this scheme gives clearer notions than the tables where we find fractions of milligrams indicated.

Though the parotid saliva appears less viscous than the submaxillary saliva, it is not on account of a difference in the proportion of solid matter, but because it does not contain mucine, which is on the contrary very abundant, both in the submaxillary saliva and in the infusion of the gland.

Quite an interesting point is the difference that exists between the composition of the saliva in different animals.

Thus, if we compare the mixed saliva of the dog to that of man, we will find, according to the analysis of the same chemist (Jacubowitch), the following figures:

	Man.	Dog.
Water.....	995.	990.
Solid matters.....	5.	10.

In 1,000 parts of saliva, there are 0.80 of the chlorides in man, and 5.80 in the dog. The difference is very apparent.

As regards the analyses of the parotid saliva, or of the sub-lingual saliva, the differences are less accentuated. Thus, for the parotid saliva, we have the following figures:

	Man.	Dog.	Horse.
Water.....	993.	994.	990.
Solid matters.....	7.	6.	10.

This constitutes a slight and unimportant difference.

M. Rabuteau has discovered that the saliva contains a certain quantity of urea, and that by ingesting a certain dose of urea (5 grammes a day), the salivary secretion is augmented; at the same time the saliva contains a much larger quantity of urea.

M. Munk believed he found in the saliva a ferment, analogous to pepsine, which, in an acid medium, transforms albumen into peptone; but this fact demands confirmation.

Nasse has studied the action of gases on salivary digestion. These substances have little influence; it seems, however, that carbonic acid retards saccharification.

As regards the quantity of saliva secreted, this was determined a long time ago by Cl. Bernard and Colin, but we may cite the researches of Tuczek. According to this author, an adult man can secrete in a half hour nearly 700 grammes of saliva (during mastication), which, calculating the weight of the glands, shows that 100 grammes of salivary glands can give 1,300 grammes of saliva. The salivary glands are then, of all the glands, those which can, relatively to their weights, secrete the greatest quantity of liquid.

Such are the latest principles relating to salivary digestion. We see that they are limited to trifling matters; but that, nevertheless, they offer a certain interest.

(b) *Gastric Juice.*—*Gastric Digestion.*—The recent labors undertaken on the gastric juice and stomach digestion, have been resumed in my inaugural thesis to the Faculty of Sciences of Paris, and it will not be astonishing, therefore, if I make from that work, both from a bibliographical and experimental standpoint, numerous extracts.

I will speak first of the chemical constitution of the gastric juice.

It is known that up to very recent times, the nature of the free acid remained undecided. It will suffice for me to cite the works of MM. Reoch, Laborde, Rabuteau, and Szabo.

By different procedures, these authors have arrived at different conclusions.

M. Reoch shows that the sulpho-cyanide of potassium, mixed with citrate of iron and quinine becomes colored by the gastric juice (sulpho-cyanide of iron), a coloration which is not produced with the mineral acids.

On the other hand, M. Laborde, in an interesting memoir, shows that water, added to 3 *millièmes* of chlorohydric acid, transforms starch into sugar, when the acid solution of starch is heated to 150° C., at 5 atmospheres. Now, in these conditions, gastric juice cannot transform starch. Moreover, if we put some bioxide of lead and some sulphate of aniline in a solution containing traces of chlorohydric acid, immediately a deep mahogany color is seen to supervene, which lactic acid cannot produce if it were in a quantity six times larger; now the gastric juice behaves itself like a solution of lactic acid, and not like a solution of chlorohydric acid.

These experiments have been repeated by M. Szabo who has arrived at very nearly the same results as M. Laborde with this difference that, according to M. Szabo, the two acids, lactic and chlorohydric are found in the gastric juice, although chlorohydric acid is often deficient especially in cases of dyspepsia.

M. Rabuteau has treated the gastric juice by quinine, and he has extracted the salt of quinine thus formed by amylic alcohol. In these conditions he has always been able to recognize some chlorohydrate and never any lactate of quinine.

If we join to these experiments the results obtained by other physiologists, we shall see that a very great uncertainty prevails; we may, however, make one important remark, it is that the experimenters who have believed in the presence of lactic acid in the stomach have never been able to prove this directly, and what they have proved by many reactions, colorimetric and others, is that the gastric juice does not comport itself like an aqueous solution of chlorohydric acid, and consequently if there is any chlorohydric acid in the stomach secretions this acid is found not in a state of freedom, but in a state of combination.

I have endeavored to solve this question of the nature of the free acid by several procedures, and at the commencement, by the quite old method of Prout and of Schmidt, which is almost unassailable.

Naturally, as I must confine myself within proper limits, I can only give here the results, that is to say the excess of free chlorine over the combined chlorine.

Gastric juice of man (pure)	....+1.224	0.421
id.	....+0.447	0.446
Gastric juice of man (mixed with aliments)	....-0.107	1.619
id id	....+0.478	1.605
Gastric juice of fish	....+ 1.98	1.605
Gastric juice of fish having undergone dialysis	....+0.083	0.153
Gastric juice of fish not having undergone dialysis	....+1.062	2.392

These figures show us that in the gastric juice of fishes and of man, as in that of the sheep and of the dog (Schmidt) there is some free chlorine, that is to say, uncombined with bases, mineral or ammoniacal,

both in the parts of the liquid which are dialysed, and in those which have not passed, at the end of twenty-four hours, through the membrane.

It may then be regarded as certain that there is hydrochloric acid in the gastric juice, perhaps free, perhaps combined with other bases than the ammoniacal and the saline mineral bases.

The fact that free chlorine is always in smaller quantity than the chlorine of acidity (supposing the free acid to be hydrochloric acid), need not astonish, because the salts are not all chlorides. There are sulphates, phosphates, silicates, etc., and the calculation of the bases has been made as if they were all in the state of chlorides.

Thus the method of Schmidt seems quite demonstrative; but we should be wrong to limit ourselves to a single method, because it may carry with it an unknown error. Thus I have sought to determine the nature of the acid of the gastric juice by more direct methods.

The principle of the new method that I have employed is founded on the experiments of M. Berthelot (*Ann. de Ch. et de Phys.*, 4e série, t xxiv, p. 396, 1872).

When we agitate an aqueous solution of an acid with ether, the ether and the water divide the acid according to a constant relation, which is called the *co-efficient of division*, and whose numerical value characterizes each acid.

For the mineral acids this co-efficient is very high, over 500, that is to say, that the ether does not remove them, so to speak, from the water. For the organic acids, it is much lower; for lactic acid, (of fermentation), it is, on an average, 10.0, varying, according to the concentration, from 8.5 to 11.5, that is to say, that ten volumes of ether in presence of one volume of water, remove from the water half of the lactic acid that it contains.

If there are two or more acids dissolved, we may call the *relation of division* the relation which is established between the acidity of the water and the acidity of the ether. This relation allows us to estimate the relative proportions of the mineral acids and of the organic acids, provided that the qualitative nature of the latter is known.

HUMAN GASTRIC JUICE (PURE).

(Different samples, but collected by the same method.)

	Relation of Division.
1st. Fresh.....	217.0
2d. One day old.....	133.0
3d. One day old.....	137.0
4th. Two days old.....	99.5
5th. Six days old.....	60.8
6th. Eight days old.....	66.0
7th. Three months old.....	16.9

These figures allow us to conclude that the pure and fresh gastric juice contains almost entirely a mineral acid, but that, when it grows old, there develops by slow fermentation an organic acid soluble in ether.

It was interesting to discover the nature of this organic acid. I have determined it in many ways.

1st. By the analysis of the salt of zinc obtained by treating the gastric juice mixed with aliments by Liebig's methods. The analysis has given me figures agreeing with the hypothesis of a lactate of zinc

2d. The crystalline form of the salt of lime is entirely analogous to the crystalline form of the sarco-lactate of lime;

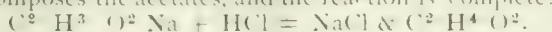
3rd. The co-efficient of division of the acid is from 2.5 to 3.5, that is to say, very near the co-efficient of division of sarco-lactic acid, which is 4.

All these facts allow me to conclude that the organic acid contained in very slight quantity in the fresh gastric juice and in larger quantities in old gastric juice, is sarco-lactic acid.

However, chlorohydric acid always remains predominant, and it is necessary to find out whether it is in a free state or in a state of combination.

The experiments of M. Laborde tend to prove that an aqueous solution of chlorohydric acid behaves itself with respect to cane sugar or starch, otherwise than does the gastric juice. I have repeated these experiments, modifying them in the following manner: A solution of saccharose is brought for a minute to the boiling point, with a dilute solution of hydrochloric acid. It is found that the sugar is converted, while with gastric juice of the same strength there is no conversion.

In the second place, chlorohydric acid passes much more rapidly through the membrane of the dialyser. The third fact is the most important. Chlorohydric acid in aqueous solution totally decomposes the acetates, and the reaction is complete:

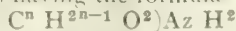


If the quantities of acetate of soda and of chlorohydric acid are equivalent after the reaction there is nothing but chloride of sodium and acetic acid. Now, with the gastric juice, the reaction is not complete and all of the acetic acid is not set at liberty.

In this, the gastric juice behaves like a solution of chlorohydrate of leucine, and indeed, the glycol and the leucine behave towards acids like feeble bases, neutralizing them in part and no longer allowing them to set at liberty the whole of the acetic acid of the acetates.

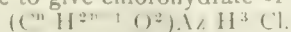
This hypothesis is found to be confirmed by experiment. I prepared a stomach infusion with eight veal rennets, well washed, treated with a dilute solution of chlorohydric acid to prevent putrefaction and to carry off the active substance contained in the mucous membrane. With the aid of chemical processes too long to be described here, I was enabled to extract from this liquid 4 to 5 grammes of crystallizable substances, constituted principally of leucine, and slightly of tyrosine and tyro-leucine.

Indeed, the glycolol, the leucine, the butalanine are amide acids having the formula

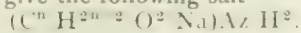


and it is probable since the remarkable works of M. Schutzenberger, that albumen has an identical constitution.

Suppose then two molecules of this albumen combined with chloride of sodium, they would divide into two in the following manner, in presence of water: on one side the chlorine would betake itself to a molecule to give chlorohydrate of leucine:



on the other hand the soda would take the other molecule to give the following salt



However, to be confirmed, this hypothesis would require new experiments.

The acidity of gastric juice varies with the divers physiological conditions and but few experiments have been made on this subject, either on man or on animals.

On man, profiting by the exceptional case of a gastric fistula which it was given me to examine, I have determined a number of things which have compelled me to draw the following conclusions:

(a) The average acidity of the gastric juice either pure or mixed with aliments equals about 1.7 grammes of chlorohydric acid to 1,000 grammes of liquid. I have never found the acidity below 0.5 gr., nor above 3.2 gr.

(b) The quantity of the liquid which is found in the stomach does not in any way influence its acidity; whether the stomach be nearly empty or surcharged with food, its acidity is almost invariable.

(c) Wine and alcohol increase the acidity of the stomach. Cane sugar diminishes it.

(d) If we inject into the stomach, acid or alkaline liquids, the gastric liquids tend very rapidly to regain their normal acidity, so that at the end of an hour after these injections the stomach has regained almost completely its mean acidity.

(e) In the intervals of digestion the gastric juice is less acid than during digestion,

(f) The acidity slightly increases towards the end of digestion.

(g) The sensation of hunger and of thirst neither depend on the state of acidity, nor on the state of vacuity of the stomach.

The gastric juice of fishes also presents interesting peculiarities.

Indeed, in the greater part of the vertebrates, very voracious and carnivorous, the stomach is separated from the intestine by a very contracted canal, provided with muscular fibres forcibly contracted during digestion, and which I have proposed to call the *pyloric strait* (*detroit pylorique*). Besides, the intestine is short, and the pancreas, when it exists, very small. The food consists almost entirely of muscular flesh. Therefore, the preponderating importance, nearly exclusive, of the stomach secretion. It may be said of certain fishes (for example *Lophid*) that they are all stomach.

The acidity of the gastric juice is extreme and very much surpasses what we know of the acidity of the secretions in the other vertebrates. Indeed, this acidity often reaches 15 grammes (in weight) of H. Cl. to 1,000 grammes of liquid, and I do not doubt but that this figure is often surpassed. If we recall that in the dog the acidity is 3 grammes, (Schmidt) in man from 1 to 2 grammes, in the sheep about 1 gramme (Schmidt), we will get a better idea of the extreme acidity of the stomach juice of fishes.

Interesting observations have been made on the gastric juice of the invertebrates. A long discussion was engaged in on this point between Mr. Plateau and M. Jousset. According to M. Plateau, the gastric juice of insects (of the *Blatta orientalis*) is alkaline, while according to M. Jousset this liquid is acid. The question is still unsettled.

THE HOSPITAL GAZETTE,

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and the Collateral Sciences.

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EDITORIAL.

COUNTER-PRESCRIBING.

Efforts designed to secure the public good, especially when of a character looking to the protection of life, are sure to be appreciated, are never lost. We are forcibly reminded of this by the continual approving and applauding of our outspoken demand for the discontinuance of counter-prescribing. Not only from the medical professor, but from the better class of druggists, and from the people themselves, are we in receipt of commendatory communications, advising us to continue our work until a perfect safeguard has been erected, and the penny-grabbing propensity of the shop-doctor has been put down. Such is our intention, and this approbation and applause urging us, who need no urging, to expose and condemn, gratify us, since they make it evident that the dangers accompanying irresponsible and ignorant drug prescribing are being properly considered by the people themselves. When this point is reached, and the public are aroused to a sense of their peril, our design will have been accomplished. People make short work of burglars, generally not annoying courts by insisting upon the penalty of the law, but address conclusive arguments urged with explosive force to the offenders themselves, which cause a sudden termination of burglarious, as well as other notions. Personal safety, when endangered, if the situation is thoroughly understood, does not take a leisure stroll to lawyers' offices for protection and advice, but proceeds to eliminate the causes of danger in the most prompt and effective manner that the occasion will permit—the law fairly rejoices when the work of elimination is thoroughly done.

It is the GAZETTE's purpose as a medical journal, to awaken the public mind to a realization of their

position so far as shop-doctors are concerned, and leave the result to the parties concerned. We do not wish to be of the number who report at the funeral. We are determined to tear the mask from these fellows, and make them bear the odium of their murderous work, relieving the medical profession from stigma, and adding to the security of human life.

It has been said, with little head and less heart, that the responsibility for counter-prescribing rests with the people who patronize these druggists, importuning them for gratuitous advice. The poor careworn, toiling sufferers who furnish food for these hybrids are blamed. It seems that it is not enough for these druggists to allure, to deceive and to destroy their victims, but they must blacken their memory even. These fellows plan their escape well; even while they are arranging to carry out their death-dealing performances, have they bethought for themselves a refuge if disaster befall. The very weakness of the poor ignorant sufferers, the foolish notions of economy, upon which these druggists have based their hopes for blood money, and which they have cultivated, is thrust forward to bear the brunt of the disgrace and to save the murderer from his deserved fate. This plea has been too powerful thus far. Analyzed, it repeats the old story of cunning rewarding its wornout instruments with treachery; having worked upon the saving idea of the patient until the pennies were secured, the counter prescriber has no farther use for the patient and derides his lack of worldly wisdom. He deceives by assuming to be competent to prescribe, by asking questions, by defaming physicians, by looking very wise and by taking from its shelf a calf bound volume, a pharmacopœia it may be, a Beadle Dime Novel or a dictionary it might better be in his hands. He cultivates the hope that his services will accomplish the good desired by the patient, whose notions of economy make him an easy victim of deception. If then, the poor economizing sufferer is at all blamed, how much more is the druggist to be blamed who nurses this weakness to the point of profit.

Counter Prescribing is entirely a question of pennies, and though he may not be able to distinguish between impending labor and cholera morbus, a prescribing druggist will advise and give some simple remedy, that's what he calls it, in order to get the pennies. Neither considerations of competency, honor, nor life affect his act. Thirty-five cents is his motive. This being the actual situation, it is imperatively demanded that each physician shall agitate this subject with his own patients, explaining and warning them, that the public may

be better protected. Rest assured that when the public do understand their peril, they will provide for their own safety. Every doctor has a plain task in this matter appointed for him.

When we look about us and see the mountebanks, the quacks, the impostors and the miracle-workers, who in the name of medicine are practising their tricks, and breeding disease and disorder, we offer no excuse for the seemingly extravagant comparisons used in exposing counter-prescribers, with whose places of business, we are compelled to have direct communication.

Our profession is weighted down with enough that is properly chargeable to it, without being called to do double duty as burden bearer. Leather and metal contrivances advertised by men who have been hunted from even the sawdust swindling fraternity, as galvanic belts for the cure of rheumatic diseases; cheap liquors, freely endorsed by medical men anxious to publish their qualifications as samplers, pushed as having wonderful medicinal properties; clairvoyants with their fits and long winded prophecies and diagnostications, these and many other disreputable arrangements are daily announced as curative agencies, and by their foul doings outrage the popular mind, so that a physician, however competent, generous and earnest, is too often esteemed a cheat. We have a right and it is our duty to denounce such for the profession's sake, and for the public welfare. We have begun the crusade against the counter-prescribing branch, have effected much good, and see splendid promise for the future, therefore, we devote ourselves particularly to this department for the present.

SUBSTITUTION.

In relation to the subject of counter-prescribing, it is proper for us to lay before our readers the essential points of Dr. A. H. Goelet's rejoinder to Mr. Molwitz. Dr. Goelet emphasizes his charge against Molwitz, and asks, "Will Mr. Molwitz use his own judgment and dispense some other preparation? His was a lame excuse for substituting *his preference*. It was clearly his duty, when he did not know of such a preparation as Kress' Acidulated *Liquid Pepsin*, to ask my consent to a substitution." Mr. Molwitz does not deny the charge of substituting another preparation for the one ordered, Kress' Acidulated Liquid Pepsine; and Dr. Goelet, therefore, properly insists upon his right, as attending physician, to have his prescription compounded as directed. No druggist, because of his stock being below the standard demanded by neighboring physicians' requirements, is at liberty to dot or

cross-line a single letter in a prescription, to accommodate his stock on hand. Should such a practice be tolerated, then certainly medicine is a failure as a profession, and patients are at the mercy of the druggists' stock clerk, whose business it is to secure proper goods before an entire exhaustion is announced. Heaven protect the sick! Dr. Goelet is entirely within bounds in his criticisms of such practices, and his complaint will be endorsed by the entire profession. Substitution by the druggist must not be tolerated. If a druggist is especially anxious to effect a sale of such goods as he may have in stock, let him first obtain the doctor's permission. The doctor alone is responsible, and the druggist must obey his orders wholly and carefully.

We welcome complaints and congratulations on this subject, as showing progress, and will use the material thus furnished, shorn of its personalities, for the good of the cause.

TO OUR READERS.

Henceforth the price of THE HOSPITAL GAZETTE will be \$3.00 per year. The Editor will devote his whole time to journalistic work, and will endeavor to make the GAZETTE the most valuable medical periodical published. Arrangements looking to to this end have already been made, as follows:—The editorial staff has been considerably augmented, and the departments of *translations*, *selections*, and *reviews*, will, consequently receive greater attention. Letters will appear regularly from special correspondents in all the larger cities—Finely executed engravings will be inserted to illustrate the text wherever necessary or practicable, and the journal will be printed on a superior quality of paper.

SELECTIONS FROM JOURNALS.

TEMPORARY BLINDNESS IN THE PUPERAL WOMAN.

This is no longer considered such a rarity as formerly, but it is still novel enough to render the following case of interest: "A primipara, eighteen years old, was taken with labor pains about 7 A.M. At 10 A. M. the waters broke, and an hour later the delivery was completed. Convulsions followed immediately, lasting an hour. The patient requested that lights should be brought, and could scarcely be persuaded that it was bright daylight. Twenty hours later, when seen by Dr. Walliser, the pulse was 104. Temp. in axilla, 38.5° C; both pupils dilated and fixed. Ophthalmoscopic examination impossible, by reason of restlessness. There had been no post partum hemorrhage. When next seen the pulse was 94. Temp. 38 C, and the approach of a bright light caused a slight contraction of the pupils. She could now tell light from dark. On following day, pulse and temp. were normal, and

she could see fingers held close to the face. The improvement was steady and rapid, and two weeks from delivery she could read the newspaper.—*Walliser, in St. Louis Med. and Surg. Journal.*

GLYCERINE AS A FOOD.

Some years ago glycerine was proposed as a supplementary food, capable, it was even said, of taking the place of cod-liver oil in the nutrition of the invalid. The recommendation was made upon theoretical grounds, and received little confirmation from experience. Careful observations which were made, especially by the late Dr. Cotton, at the Hospital for Consumption, failed to show that it produces any effect on nutrition such as results from the administration of cod-liver oil. The opinion was thus formed that glycerine possesses little or no claim to be regarded as a food. The question has not, however, until now, received much scientific investigation. To some researches by Catillon and others we directed our readers' attention on a previous occasion.¹ The effect of glycerine on the interchange of material in the organism—*i. e.*, its value as a food—has lately been further studied by Dr. Immanuel Munk, in a series of experimental inquiries undertaken at Berlin, the results of which are published in the current number of Virchow's *Archiv*. The question is of interest not merely because glycerine has been proposed for the purpose above stated, and is occasionally administered as a vehicle for certain drugs, or to the diabetic as a substitute for sugar, but also because it is, in one sense, a constant article of diet. It is known that fat is decomposed in part in the alimentary canal, under the influence of the intestinal mucus, into its fatty acid and glycerine, and the amount of this decomposition is at present unknown. Again, all wines contain a certain quantity of glycerine, which is one of the products of the alcoholic fermentation of sugar. Pasteur says that natural wines contain from six to eight grammes of glycerine per litre, while Neubauer puts the amount in the same volume at seven to eleven grammes. Moreover it has been proposed to use glycerine as a preservative agent. Munk has shown that the addition of two or three per cent. of glycerine to milk will postpone the lactic-acid fermentation for from eighteen to twenty-four hours. It is, therefore, important to know what influence is exerted by this substance on the vital processes. Of the toxic effect of large doses we possess information; the experiments of Munk have reference to the effect of the digestion of small quantities. Whether any nutritive value can be ascribed to glycerine, and what quantity may be taken without interference with the processes of the body, are the points specially considered.

Any substance introduced into the economy may influence the decomposition of material in two ways—by increasing or diminishing, on the one hand, the destruction of the nitrogenous material, or the exchange of albumen, and on the other the excretion of carbonic acid and absorption of oxygen. The effect of glycerine on the latter has been already studied by Scheremetjewski. But it is to the former point, the effect on the albuminates, that attention must especially be directed to determine the food-

value of any substance. This is indicated by the effect on the excretion of nitrogen, and in the case of man and the carnivora the nitrogen passing away by the urine and feces affords the necessary information. The value of the observations of Catillon on this point is lessened by the fact that the diet of the animals experimented on was not strictly regulated.

It has been found that large quantities of glycerine produce hæmoglobinuria and also diarrhœa, both of which disturb the accuracy of observation. It was necessary therefore to give such doses of glycerine as should not produce these effects, and in the case of dogs not to exceed twenty-five to thirty grammes daily. These quantities were found by Munk in no way to modify the excretion of nitrogen. Any influence of glycerine, at least in medicinal doses, on the exchange of albumen may thus be put aside. According to the ordinary definition of a food, glycerine does not possess any nutritive value. If, however, the urine only is examined, there is found a slight diminution in the amount of nitrogen, as observed by Catillon. This is quite compensated for by the increased excretion by the bowel.

What is the fate of glycerine introduced into the economy? Is it decomposed or excreted?—and if the latter, in what form? When large doses are given so as to produce hæmoglobinuria, the urine contains a substance which readily reduces copper, but has been said, on the ground of its effects on polarized light, not to be sugar, but to be probably a decomposition, or transformation product of glycerine. According to Plosz, moreover, it is not capable of fermentation. It is very difficult to say whether any unaltered glycerine passes away, since the detection of a small quantity in the urine is a matter of great difficulty. It seems certain, however, that the greater part, if not all, is decomposed in the organism, and that when moderate quantities only are given the decomposition is complete. It was observed by Weiss that the quantity of glycogen in the liver is increased by the administration of glycerine. From the analogy with other substances which have a similar effect, such as albumen, gums, etc., Munk suggests that the glycerine absorbed from the intestine and carried by the portal vein to the liver is not itself transformed into glycogen, but rather, by its quick decomposition, limits the use of the liver glycogen, or furthers its formation from other materials. However this may be, the glycerine undergoes decomposition without its products having any influence on the changes in albumen, such as the carbo-hydrates exert. With reference to this, it may be remembered that glycerine has no chemical connection with the carbo-hydrates, but is rather to be regarded as an alcohol—the tertiary alcohol of the propyl series.

The solubility of glycerine renders it highly probable that the greater part of that which is taken into the stomach passes rapidly into the blood. A small part may be unabsorbed, and in the lower part of the intestine may undergo fermentation and reduction, with the formation of butyric acid, carbonic acid, etc., although this decomposition can take place only in a neutral liquid—a condition not easy to obtain in the intestine. Gorup-Besanez has also shown that in an alkaline solution, the action of oxygen in an active state breaks glycerine up into formic, propionic, and

¹ The Lancet, vol. ii. 1877, p. 322

perhaps acrylic acids. There is some probability that, in the tissues, where similar conditions obtain the same decomposition may occur; and the intermediate products, propionic and formic acids, may be further oxidized to their ultimate products, carbonic acid and water. Scheremetjewski showed that the ingestion of glycerine causes an increase in the excretion of carbonic acid, which Catillon has affirmed may amount to 7 per cent. This increase in the production of carbonic acid must be accompanied by the liberation of its equivalent of heat, and so the generation of heat should be increased by the administration of glycerine. Hence there is the highest probability that glycerine may be of service in this respect, but that it is of no value as a tissue-food.—*Lancet*, June, 7, 1879.

ON THE EFFECT OF COLD AIR IN MEASLES.

Kaczorowski says (*Przelad Lek.*, Nos. 6 and 7, 1878) that cold air is one of the most efficient remedies in eruptive affections. He happened to discover this interesting fact by mere chance in the case of a smallpox patient who escaped into the courtyard on a cold winter's day. The next day the pustules, which were already filled with pus, were dried up. Another case is that of a man who, while suffering from an abscess on his thigh, suddenly took measles, accompanied by a troublesome feeling of itching and burning of the skin. He was carried into a room without a fire, and, within a few hours, the itching subsided, the eruption disappeared, and the patient recovered from the measles on the third day.

The author has also found that in gangrenous affections of the lungs, or in inveterate fetid catarrhs of the trachea, cold air is a very efficient remedy. He does not attempt to explain the fact, but says that he prefers cold air to cold baths in acute febrile affections.—*London Med. Record*, May 15th, 1879.

DIFFUSE INFLAMMATION OF THE LIVER FROM PHOSPHORUS.

In a paper reprinted from the *Deutsches Archiv für Klinische Medicin*, Dr. Anspecht describes experiments made upon rabbits by injecting a solution of phosphorized oil (one in eighty) into the subcutaneous tissue of the back. Three milligrammes was the dose thus administered at each injection. Twenty-one animals were experimented upon; and of these, thirteen died after one injection, two after two, three after three, and the rest after four, five, and nine. The conclusion arrived at is this. Phosphorus, or some modification of it produced in the blood, leads to a series of chemical changes in the liver-cells, with the formation of albuminoid granules and fat-grains in their protoplasm, but the liver-cells are not destroyed. If the subject of the experiment do not die in consequence of these changes, then the liver-cells become completely restored. If the phosphorus be administered in too frequently repeated doses, the albuminoid grains and fat-granules are no longer formed, but the cells become pale and glassy, with distinct nucleus, and the interstitial tissue becomes diseased. The

changes observed are compared with those which ensue in the kidney when the ureter is ligatured, and found to be very similar. The conclusion derived from a review of both sets of experiments is that in either case a parenchymatous inflammation is the primary change; that when the obnoxious element causing this, which may be of various kinds, is at work sufficiently long or sufficiently often to hinder the speedy resolution of the inflammation, secondary changes follow in the interstitial tissue, and an intestinal inflammation is started.—*British Med. Journal*, June 7, 1879.

LIGATURE OF THE ISCHIATIC ARTERY.

M. Tillaux related (*Union Med.*, May 20), at the Société de Chirurgie, the case of a mason, aged 20, who, having fallen from a scaffold, was brought to the Beaujon in a state of collapse. There was a fracture of the thigh, with a wound, which however, did not seem to communicate with the fracture. During the first fortnight all seemed going on well, when a very painful swelling became developed behind the great trochanter. There was fluctuation, but neither pulsation nor *bruit-de-souffle* in the tumor; and, under the belief that it was a subcutaneous abscess, a vertical incision was made into it, which was followed by a formidable jet of blood. An aneurism being thus the cause of the tumefaction, a large horizontal incision was at once carried through the gluteus to the ischiatic notch, where the artery was found divided as it left the pelvis. A bony splinter, apparently proceeding from the edge of the sacrum, and to which the production of the false aneurism was doubtless due, and could be felt. The artery was cut through close to the pelvis, and the hemorrhage instantly arrested by a hæmostatic forceps applied to the central end. This was left *in situ* for forty-eight hours. The patient entirely recovered, *forcipressure* here having been of great service, seeing the difficulty of applying the ligature or torsion. M. Tillaux drew attention to the singularity that so large an aneurism should have remained twenty days without its existence having been suspected.—*Med. Times and Gaz.*, June 21, 1879.

ON NERVE-STRETCHING.

A case of convulsions of the face, which was cured by stretching the facial nerve, is related in No. 40 of the *Berl. Klin. Woch.*, 1878, by Dr. Baum. The patient, a woman, aged 35, who had previously had a few epileptiform attacks, became subject to convulsive twitchings of the muscles of the left side of her face. They lasted generally for one minute at a time, and were repeated every two or three minutes. Finding that all the remedies used, and even the galvanic current, were of no avail, the author resolved to try whether nerve-stretching would prove successful. He accordingly laid bare the facial nerve near the stylomastoid foramen, and, seizing it roughly with a pair of forceps, he lifted the nerve from the surrounding tissue. The left side of the face was paralyzed for about half an hour, after which sensibility had returned, and the convulsions disappeared. The au-

Thor ascribes a part of his success to the squeezing of the nerve, and points out that there is no danger of paralysis, as the latter, even if it should occur, is transitory. — *London Med. Record*, June 15, 1879.

SYPHILITIC INOCULATION.

In a lecture upon this subject, delivered at the St. Louis (*Gaz. des Hôp.*, April 8), M. Fournier delivered some observations, of which the following is an abstract:

When a successful inoculation is made, a simple chancre, a special and pathognomonic lesion, is produced, which is easily recognizable at the end of twenty-four or forty-eight hours. It consists of a pustule which, when it has burst, leaves a hollow ulcer with abrupt and incised edges and a yellowish fundus, and is surrounded by an extensive areola, which in a few days may attain considerable dimensions. In relation to diagnosis of syphilis, what is the assistance we derive from inoculation? It renders service to the surgeon by producing the two following results—(1) It enables him to differentiate a simple chancre from a venereal infecting chancre; and (2) to differentiate ulcerated syphilides from simple chancre.

1. *Inoculation serves to distinguish Simple Non-infecting Chancre from Syphilitic Chancre.*—This law reposes on these two considerations—(1) Syphilitic chancre cannot be inoculated on the subject of it; (2) simple chancre can always be inoculated on the subject of it—it is anti-inoculable. Simple chancre is a "strong pus," as it was formerly called, and takes invariably and indefinitely. Liebmam inoculated himself 2700 times with simple chancre, the last chancres being as positive as the first. In a great number of cases we are unable to diagnose the quality of a chancre. But the diagnosis of chancre is one concerning which patients are in great haste to be assured. Dismayed, they rush in indescribable anxiety to the surgeon, and desire to be informed at once, yes or no, whether they are the subjects of pox. Whenever, therefore, the objective signs do not suffice to inform the practitioner, inoculation will prove useful in giving precision to his diagnosis.

2. *Inoculation serves to distinguish Simple Chancre from certain Ulcerated Syphilides.*—Some ulcerated syphilides are located on the genital organ, and nowhere else; and then risk being mistaken for simple chancres, from the characters of which they are but slightly distinguished. Their differential diagnosis constitutes one of the greatest difficulties in the diagnosis of syphilis, and the question can only be settled by inoculation. Simple chancre will positively reply to inoculation, while the inoculation of syphilides will prove negative; so that, where there is doubt, inoculation should be performed. In some cases it may render the greatest service. A patient came from the country to consult me, who had been under treatment for mere than two years for supposed simple chancres, ulceration having "decorated" the corpus cavernosum. He absolutely denied having had syphilis, and refused inoculation or even an anti-syphilitic treatment. Returning two months later, the ravages of the phagedæna

having increased, he consented to inoculation, which, practised on two successive occasions, proved negative, demonstrating the syphilitic nature of the ulcers. He underwent specific treatment, and the ulceration, which had lasted during twenty-eight months, and was continually extending, became arrested immediately, and in two months had undergone complete reparation, the recovery confirming the diagnosis.

Such are the results which are furnished by inoculation, but it supplies no others, and more need not be sought from it. It will remain mute if we seek for the differentiation of the accidents of the primary period from those of the tertiary period of syphilis. The pus derived from the ulcers of either of these periods will always furnish only negative results. But, even so restrained, the results of inoculation have their value, and more than this cannot be exacted.

Practice, Surveillance and Treatment of Inoculation.—1. First of all, an absolute precept must be laid down. Inoculation must never be practised except in the interest of the patient. It is morally indispensable that it should never be resorted to unless a practical necessity for it exists. It should never degenerate into an experiment *in anima vile*. If it is a mere question of pure science, the practitioner should experiment upon himself, and not upon his patients. 2. Inoculation should only be practised when a serious indication exists, the importance of which renders the operation legitimate. It should be known, in fact, that inoculation is attended with some danger—the danger, in fact, of a simple chancre which may take on an ulcerative and extensive form, and lead to detachment, lymphangitis, erysipelas, and even phagedæna. No doubt, such cases are rare, but they are authentic. I have seen and opened several times buboes in the axilla consequent on inoculations practised on the arm, and an example is recorded of phagedæna invading the integument of the thigh, and even placing the patient's life in peril. The practitioner is responsible for the inoculation and the chancre with its consequences that may ensue; and this he should never forget. Unfortunately inoculations have placed some practitioners in most uncomfortable and painful positions. As a general rule, therefore, we must be discreet in its application, only resorting to it when a serious indication authorizes its employment. 3. Inoculation should never be done except with the full and free consent of the patient, who ought to be informed of what we are about to do, the intention of the procedure, and even the dangers that may attend it. I formally condemn inoculations "by surprise," practised on unconscious patients, thus transformed into subjects of experiment. Medical dignity prohibits such unjustifiable procedures. 4. Where should inoculation be performed? The choice of the region is of no great importance, but preference may be given to that of the deltoid. For the upper extremity being less exposed than the lower to fatigue, the danger of bubo is less; the cicatrix is covered by the dress, and, being in the vicinity of the vaccine cicatrices, its nature is not observable. 5. A sharp and grooved vaccine lancet is the best instrument for inoculation, being very superior to the needle,

pin, etc. Charged with pus from the doubtful ulcer, without scratching or causing bleeding, the lancet is passed into the skin to the depth of one or two millimetres at the most. It should be directed horizontally, parallel to the surface of the skin, as without this precaution it may penetrate too deeply, becoming dangerous and yet less demonstrative. The inoculation should be protected by covering it with a watch-glass, which is fastened on by several circular strips of diachylon. In this way the pustule is allowed its full development without risk of irritation. When a simple chancre is the result of the inoculation it must be treated and healed as rapidly as possible, bringing it to an end while still small. The best means for this purpose is the application of Ricord's carbo-sulphuric paste, made of such proportions of carbon and sulphuric acid as to allow the mixture to attain the consistence of blacking-paste. A small portion is applied to the chancre and kept on its place by wadding. The paste produces a black crust adherent to the tissues, which slowly dries in two or three weeks. It is very rare for this cauterization to fail in its object. Inoculation, thus practised and treated, is an inoffensive practice, exempt from danger, and one that is authorized for the establishment of the diagnosis, and consequently the prognosis, in doubtful cases.—*Medical Times and Gazette*, June 21, 1879.

INFANTICIDE: DESTRUCTION OF THE CHILD DURING DELIVERY.

The following case is narrated by Dr. Ebertz in the *Vierteljahrsschrift für Gerichtliche Medicin*, Band xxviii, page 215. A maid-servant, H., became pregnant by her master. The girl slept with her mother, aged 71, who had formerly been a midwife, but had long ceased to practice. She was delivered during the night, but the delivery was kept secret. Two days afterwards, the authorities discovered that the girl had been recently delivered. The dead body of the child was found under the bed; the left arm being separated from the body. An inspection showed that the child had not breathed after delivery, and that it had died either before or during labor. The skin had a grayish blanched appearance. The left half of the thorax, the left shoulder, and the soft parts about the left arm had a reddish brown color. Blood, partly liquid, was diffused in the cellular tissue and in the muscles. The tissues had been cleanly cut in a circular form; the forearm found with the body fitting evenly into the wound. The left clavicle was dislocated. The experts came to the conclusion that death had taken place from hemorrhage. The skin was pallid. There were no cadaveric spots and no patches of lividity, the internal organs were generally pale, the cerebral sinuses empty, and the heart bloodless. The hemorrhage had been caused by a wound of the brachial artery in the separation of the arm by a cutting instrument. No information could be procured of the mode in which the delivery had been effected. The old midwife, who had died five weeks after her confinement in prison, had stated that it was a breech-presentation, that the child had come into the world dead, and with its body in the state in which it was found. The accused, H., admitted

that her mother had assisted in the delivery but that her sufferings were too acute to allow her to form an idea of what she had done. She further stated that an arm had presented itself, and that the body of the child did not pass until about a quarter of an hour afterwards. From these facts, the experts concluded that there had been a presentation of the left shoulder, and that the dislocation of the clavicle proved that there had been very forcible traction of the arm; further, that the tearing off of the arm had been effected during life. This could not have been done by the girl herself, because the arm of the child was in the vagina. The midwife had therefore used criminal violence during delivery, a fact proved by the extravasations of blood in the soft parts. They also inferred that the midwife, finding that a shoulder presented, endeavored to turn it, and, from ignorance, used undue force by pulling the hand. This led to extravasation of blood and dislocation of the clavicle. It was at this time that the arm was cut off, and after this delivery was accomplished. Dr. Spillman, who reports the case, observes that it is of some importance as showing, in reference to a child which has not breathed and which has not lived after birth, that such violence may be inflicted on it to cause its death during delivery and while still within the body of the mother. The extravasations of blood in and about the tissues of the shoulder manifestly proved, in spite of the absence of the signs of respiration, that the child was living when this violence was applied to it, and that its death was owing to these injuries. [There can be no doubt of the correctness of this opinion. Although the lungs did not furnish any evidence of life from the establishment of respiration, the evidence that the child was living is sufficiently proved by the condition of the body; this showed that there was a free circulation going on at the time when the violence was inflicted. In England, this case would have been dismissed, as there would have been no proof of the child having been born alive; and without that proof, under the present state of the English law, the destruction of a child during delivery or in the act of birth is not murder. In the above case, the killing of the child appeared to arise more from blundering ignorance than from any intentional act; hence it must be regarded as rather a case of manslaughter than of murder.]—*Brit. Med. Jour.*, June 28, 1879.

HOSPITAL FORMULARY.

PHARMACOPŒIA OF THE HOSPITAL OF THE UNIVERSITY OF PA.

MISTURÆ.

23. *Mistura Guaiaci Composita.*

℞. Pulv. Resinæ Guaiaci.

Potassii Iodidi.....aa gr. x

Vini Colchici Sem.....f 3 ss

Aquæ Cinnamomi,

Syrupi,.....aa q. s. ad f 3 j

M.

Dose, a tablespoonful.

24. *Mistura Gentiana Acida.*

R. Acidi Nitromuriatici Dil. mxl
 Infusi Gentianæ Comp. ad f 5 j

M.

Dose, two teaspoonsful.

25. *Mistura Arsenicalis.*

R. Liq. Potassii Arsenitis. f 3 ss
 Tr. Quassia. f 3 ij
 Syrup. f 3 vss

M.

Dose, one teaspoonful, diluted, immediately after meals.

26. *Mistura Aetheris Composita.*

R. Spt. Aether Comp. f 2 ijss
 Tr. Lobelia. f 3 ss
 Aq. Camphoræ. f 2 v

M.

Dose, one to two teaspoonfuls.

27. *Mistura Cinchonæ Sulphatis.*

R. Cinchonæ Sulphatis. gr. xij
 Acidi Sulphurici Dil. m xxv
 Aq. Menthae Pip. ad f 3 j

Ft. sol.

Dose, one to four teaspoonfuls.

28. *Mistura Deweesii.*

R. Tr. Guaiaci Comp. f 3 xj
 Tr. Cantharidis. f 3 ss
 Tr. Aloes. f 3 ij
 Tr. Ferri Chloridi. f 3 ij

M.

Sig. Two to four teaspoonfuls three times a day.

PILULE.

1. *Pilula Opii Et Plumbi.*

R. Pulv. Opii. gr. 1 s
 Plumbi Acetatis. gr. ij
 M. et ft pil. No. 1.

2. *Pilula Opii Et Acidi Tannici.*

R. Pulv. Opii. gr. 1/3
 Acidi Tannici. gr. iij
 M. et ft. pil. No. 1.

3. *Pilula Hydrargyri Iodidi Viridis.*

R. Hydrargyri Iodidi Virid. gr. 1/4
 Confectionis Rosæ. gr. ij
 M. et ft. pil No. 1.

NEWS ITEMS AND NOTES.

Longevity.—The Reverend F. Beadon, Rector of North Stoneham and canon of Wells, died on the 10th instant, aged one hundred and one years and six months. This is an instance of extreme longevity about which there appears to be no doubt. Mr. Beadon took his degree at Oxford in 1800; and had held the living of North Stoneham for sixty-eight years.

In Memoriam.—A few of the medical friends of the late Gurdon Buck, M.D., have expressed their sense of his worth by having two portraits of him painted by M^s. Jerome Thompson. One of these has been presented to the portrait gallery of the New York Hospital, the other to the Presbyterian Hospital, with both of which institutions Dr. Buck was connected. He was for more than forty years

one of the attending surgeons of the New York Hospital, faithfully, and with great punctuality, discharging the arduous duties attendant upon that office, and, as his friends well know, often to the neglect of his private practice. As a worker he was indefatigable, and many improvements in surgery were devised by him, more especially in his treatment of fractures of the thigh, to prevent shortening. "Buck's method" is now universally adopted by intelligent surgeons. In the Presbyterian Hospital, also, "his labors were abundant." By these portraits the memory of a skillful surgeon, a faithful friend, a devoted Christian man, is worthily commemorated.

The third annual session of the American Dermatological Association will be held in New York on the 26th, 27th, and 28th of August, 1879.

R. W. TAYLOR, M. D.,
 Secretary.

Treatment of Obesity.—At this moment, when a considerable desire to get rid of superfluous fat appears to have taken possession of the public mind, a pamphlet published by M. Philbert "On the Treatment of Obesity by the Waters of Brides, Savoy," may be of some interest. The waters at Brides appear to be of a similar character to those of Carlsbad and Marienbad, which have attained some celebrity in the treatment of polysarcia. They are, of course, described, therefore, as being at the same time purgative and tonic. The treatment consists especially in the administration of the waters in a dose of from three to five glasses a day, to which sometimes is added a purgative salt or the waters of Salins Montiers, a thermal station in the neighborhood of Brides, and in the use of the Turkish baths. To these means are added the resources of exercise and special alimentation. Many of these methods can, of course, be employed elsewhere than at the thermal station itself; but, as M. Philbert remarks, at a certain stage of his malady the fat man loses the power of will and falls into a state of apathy and intermittent somnolence, and will not take the trouble to conduct for himself the necessary treatment. It is then that it becomes necessary to remove him from the influences which surround his daily life, and the best plan is to send him to a suitable bathing station. There the patient listens willingly to the advice of his physician; he has no excuse for not following it, and the improvement which results encourages him to continue his treatment at home. M. Philbert relates in his memoir (published by Delahaye, Paris) a certain number of cases which show, in the majority of the patients, a diminution of weight of from ten to fifteen pounds obtained in twenty days. In some the diminution is much more considerable, especially when they have been able to make a more prolonged stay at the watering-place; but the important point is that, according to him, the patients leave the place in very good health, and more vigorous than they were on arrival, which he traces to the fact that the cure is not effected by inanition and insufficient feeding, as with the majority of the German waters. The patients, on the contrary, follow their appetites in eating, but live according to a special regimen.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and merits of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

ORIGINAL ARTICLES.

DESCRIPTION OF A PAIR OF A-SYMMETRICAL FEMORA.

J. S. WIGHT, M. D.

Professor of Surgery at the Long Island College Hospital.

In the Spring of 1879 a pair of femora were removed from a subject in the dissecting room of the Long Island College Hospital and prepared for the museum. A description of this pair of femora is not devoid of interest—because they illustrate the question of a-symmetry in various ways. I have made the following measurements of these two bones, namely:

1. The length of the right femur from the head to the internal condyle is eighteen and two-eighths inches.
2. The length of the left femur from the head to the internal condyle is eighteen and one-sixteenth inches.
3. The length of the right femur from the top of the great trochanter to the internal condyle is seventeen and seven-eighths inches.
4. The length of the left femur from the top of the great trochanter to the internal condyle is seventeen and five-eighths inches.
5. The length of the right femur from the lesser trochanter to the internal condyle is fifteen and six-eighths inches.
6. The length of the left femur from the lesser trochanter to the internal condyle is fifteen and five-eighths inches.
7. The distance from the summit of the head of the right femur to the external surface of the great trochanter is three and five-eighths inches.
8. The distance from the summit of the head of the left femur to the external surface of the great trochanter is three and five-eighths inches.
9. The breadth of the condyles of the right femur is three and two-eighths inches.
10. The breadth of the condyles of the left femur is three and one-eighth inches.
11. The height of the arch of the right femur is one and five-eighths inches.
12. The height of the arch of the left femur is one and four-eighths inches.
13. When the condyles and the great trochanter of the right femur rest on a plane surface: the axis of the neck of the femur and this plane surface meet at an angle of about 40 degrees.
14. When the condyles and the great trochanter of the left femur rest on a plane surface: the axis of the neck of the femur and this plane surface meet at an angle of about 20 degrees.
15. The axis of the neck and the axis of the shaft of the right femur meet at an angle of about 120 degrees.
16. The axis of the neck and the axis of the

shaft of the left femur meet at an angle of about 130 degrees.

17. The right femur weighs sixteen and one-fourth ounces avoirdupois.

18. The left femur weighs sixteen and two-fourths ounces avoirdupois.

From the above statements may be drawn the following conclusions, namely.

(1). The right femur is three-sixteenths of an inch longer than the left femur.

(2). From the top of the great trochanter to the internal condyle, the right femur is four-sixteenths of an inch longer than the left femur.

(3). From the lesser trochanter to the internal condyle, the right femur is two-sixteenths of an inch longer than the left femur.

(4). The distance from the summit of the head of the femur to the external surface of the great trochanter is the same for the two femora.

(5). The breadth of the condyles of the right femur is greater than the breadth of the condyles of the left femur by two-sixteenths of an inch.

(6). The anterior arch of the right femur is greater than the anterior arch of the left femur by two sixteenths of an inch.

(7). The condyles, the shaft, and the neck of the right femur are twisted more than the condyles, the shaft, and the neck of the left femur, by 20 degrees.

(8). The axis of the neck and the axis of the shaft meet at an angle less by 10 degrees in the right femur than in the left femur.

(9.) The weight of the left femur is one fourth of an ounce greater than the weight of the right femur.

In this place we may make the following remarks, namely:

I. The right femur is greater in all the linear dimensions above noted except one: and that is in the line of the head, neck, and trochanter major.

II. On the other hand the left femur weighs more than the right femur.

III. If the neck of the right femur were as oblique as the neck of the left femur, the right femur would be longer: and the difference in length of the two femora would be greater.

IV. The two femora show the condition of a-symmetry in a complete manner.

V. The a-symmetry in the *rotary twist* of the two bones shows how it would be impossible to determine accurately the extent of a *rotary displacement* of the bony fragments after treatment of fracture of the femur.

VI. The large anterior arch of either of these femora in case of fracture, might have been more or less completely obliterated during the treatment. This certainly would not be making the bone as it was before being broken.

VII. These two femora are natural specimens. And if a surgeon treated a broken femur, leaving as much forward angular displacement as is found in one of these bones, he might be blamed for not treating his case well.

VIII. The development and the formation of bones is not according to an invariable standard.

IX. Therefore, surgeons in their work should not be held to an invariable standard.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

Prepared for THE HOSPITAL GAZETTE.

BY

JAMES FRANKLIN, M.D., HOUSE PHYSICIAN.

GENERAL TUBERCULOSIS.

Margaret Bothwell, aged $2\frac{1}{2}$ years, admitted January 4th, 1879. Mother is a healthy woman, and of a healthy family; family history of father cannot be ascertained. Until last June the child was well and hearty. At that time she had an attack of whooping-cough, which lasted for some months, and since then she has continually suffered from more or less cough. Has had no intestinal trouble during the summer; appetite has been good, and, excepting the cough, the child has been well. For about six weeks past the mother has noticed that the child has had severe fits of coughing, after which she vomited, and accompanying or following this she had cardiac palpitation. About December 25th she began to be restless at night, cried and fretted a good deal, and had no desire to play about, but manifested a decided inclination to sit still or to be carried about. She had frequent desire for stool, but passed nothing but a little flatus, and was exceedingly thirsty. Her abdomen was swollen, and tender on pressure.

At six o'clock in the evening of January 2d, she was taken with a convulsion; this was characterized by irregular movements, which began as twitching of the mouth, extending to the face, then to the right arm and leg. The movements continued with irregular intermission for about five hours. She then went to sleep and slept continuously until the next afternoon. (She had been given some medicine, the nature of which is unknown.) After this she seemed quite well and lively, and played about. On the day after, January 4th, at 1.30 P. M., she had another convulsion of the same character as the first, but much milder, and attacking the left side instead of the right.

Jan. 4.—On admission, she seems to be a well-nourished child, but at present shows signs of exhaustion. There is no paralysis; the pupils are normal; pulse 120 and feeble; respiration rapid; temperature, 102° . On examination, broncho-vesicular breathing and fine râles are heard anteriorly over upper lobe of left lung, nothing abnormal over right. Ordered: ol. ricini, 3 ij; whiskey, gtt. x q. 2 h.; bismuth and pepsin, aa. gr. iij, in milk, t. i. d.; milk and lime-water ad. lib. Poulitice to chest to be changed q. 4 h., and oiled-silk jacket, and the following cough-mixture:

R Tr. opii. camph.....
Spts. ammon. arom.....aa. 3 v
Ext. ipecac..... 3 ss
Syr. prun. virg..... 3 i
Aque.....ad. 3 vi
M. Sig. 3 i p. r. n.

Jan. 5.—Slept but little last night; was very restless and wanted to sit up; had one movement, which was liquid and contained considerable mucus. She did not cough much. Temperature, 4 A. M., 100° . Passed urine normally. Temperature, 10

A. M., 102° . Pulse much stronger than yesterday. Ordered whiskey to be given q. 4 h.; quin. sulph., gr. ij, t. i. d.

Jan. 6.—Quiet during the early part of the night, but not sleeping. At 1 A. M. she began to have a convulsion; temperature $102\frac{1}{2}^{\circ}$. Sponge-bath (temp. 92°) given; at 1.30 temperature was $101\frac{1}{2}^{\circ}$, at 2 A. M. $102\frac{1}{4}^{\circ}$. Gave quin. sulph. gr. v, in hydrobromic acid. At 3 A. M. convulsion had ceased, and she was sleeping quietly. At 5 A. M. was very restless; coughed and cried a good deal; temperature $101\frac{1}{4}^{\circ}$. During the day she had two liquid movements containing mucus. Did not take food well. Ordered:

R.
Sodii Bromid..... 3 iv.
Syr. Simpl.....
Aque.....aa. 3 iij.
M. Sig. 3 j. t. i. d.....

Temperature in the evening $103\frac{1}{2}^{\circ}$, pulse strong and regular, ordered bromide and whiskey stopped and quin. sulph. gr. iij. to be given t. i. d. Slept interruptedly for six hours during night.

Jan. 7. When she awoke was very restless and thirty, temperature 104° . She had one hard passage containing little mucus. Ordered ol. ricini. 3 j. Had several profuse watery movements containing some mucus this afternoon. Was quiet generally, did not cough much. Temperature at 10 A. M. 102° ; 3:45 P. M. 103° .

Jan. 8th. Slept better toward morning than in the early part of the evening; temperature 103° , ordered quin. sulph. gr. iij. q. 6 h.

Jan. 11th. Last night was unusually restless toward morning; temperature this morning 104° ; ordered quin. sulph. gr. iij. q. 3 h. Examination of chest shows over upper lobe of left lung percussion dullness, broncho-vesicular respiration, and fine râles as before; over the right lung is heard broncho-vesicular respiration but less marked than over left; percussion sound is normal.

She has been unusually dull to-day; pupils are slightly contracted and irregular; temperature in morning $105\frac{1}{4}^{\circ}$; she has passed no urine since last night. Ordered quinine stopped and one drop of the tincture of aconite root to be given every half hour for four doses; spts. ætheris nitrosi gtt. xv. q. 3 h. Slept well during night; but temperature continued high, ranging between 102° and 103° . Had two mucous discharges and passed a small quantity of urine.

Jan. 12th. Ordered spts. æther. nitros. gtt. xx. q. 3 h. She seem much duller than usual; temperature continues high (101° — 104°); pupils irregular—right dilated, left about normal, and sensitive to light. There is also a slight external strabismus on the right side. Pulse feeble, irregular, and 110 to 130 per minute.

Temperature 11 A. M. 102° . 1 P. M. $102\frac{1}{4}^{\circ}$. 4 P. M. 104° . Ordered temperature to be taken every 3 hours and if above 102° , to give patient a sponge-bath. Temperature at 9 A. M. $103\frac{1}{4}^{\circ}$; gave sponge bath and applied ice to head. The temperature still remained high; sponge-baths were given every two hours and ice was kept applied to the head almost continuously but the temperature continued above $102\frac{1}{2}^{\circ}$.

Jan. 13th.—At 3 A. M., quin. sulph., gr. v. were given. 6.30 A. M., temp. 102° . Had four liquid movements containing mucus and passed urine normally. Slept quietly except when aroused for bath and medicine. Pulse irregular and very weak and rapid (120). Ordered spts. æther nitros. to be stopped and poultice to chest to be discontinued. Gave tr. digitalis gtt. iij q. 4 h and whiskey gtt. x q. 4 h. Ice to head if temperature above 102° , and sponge-bath if above 103° . Temperature at 8.30 A. M. $101\frac{3}{4}^{\circ}$, 11.15 A. M., $102\frac{1}{2}^{\circ}$, 3.20 P. M., 104° , 7 P. M., 103° , 12 midnight, 103° .

Jan. 14th.—Temperature, 4 A. M., 103° . The ice-bag and sponge-baths were used as ordered, and had the effect of reducing the temperature slightly, though temporarily. Slept well last night and had no movement. Temperature to-day as usual varying from 102° to $104\frac{1}{4}^{\circ}$. Had several liquid discharges; takes milk poorly. Ordered beef essence 3 i every hour, and

R.
Sodæ bicarb. 3 ss
Tr. opii. camph.
Tr. catechu. aa 3 iv
Syr. rhei arom. 3 iss
Aque. ad 3 iv
M. Sig. 3 i p. r. n.

Jan. 15th.—Pulse very weak and rapid; strabismus more marked and her condition is much worse; temperature varies between the usual points. Ordered brandy gtt. x q. e. h. and ammon. carb. gr. iij q. 2 h. to be given alternately.

Jan. 16th.—Slept quietly last night. Temperature at 8 A. M., $101\frac{3}{4}^{\circ}$. Ordered tr. digitalis gtt. j q 4 h. She has vomited her food to-day; respirations rapid (60) and labored. Dry cups were applied to the chest and relieved the dyspnœa. Ordered bismuth. subnit. and pepsin aa gr. iij in milk q 4 h. Had several mucous undigested movements during the night.

Jan. 18th.—History of past few days is but a repetition of the preceding. Temperature remains high. This evening pulse is very rapid and weak; ordered tr. digitalis gtt iij q 4 h. Quin. sulph. in acid, hydrobromic t. i. d.

Jan. 20th.—Last night passed urine normally, but had no movement from the bowels, respiration has been shallow and at times 100 to the minute. There was no sign of œdema of the lungs, but she coughed a good deal. She is more comatose; there is no paralysis and there have been no convulsions.

Temperature: A. M., 8.30, $101\frac{3}{4}^{\circ}$; 10, 102° ; 11.15, $102\frac{1}{2}^{\circ}$
P. M., 12.30, $102\frac{3}{4}^{\circ}$; 3.20, 104° ; 4.05, $101\frac{1}{4}^{\circ}$
P. M., 7.20, $103\frac{3}{4}^{\circ}$; 8.00, 103° ; 9.00, $102\frac{1}{2}^{\circ}$

About 9 P. M., the breathing became very peculiar; it was short, spasmodic, but without any œdema and with each respiration the head moved slightly from side to side. At 10.20 P. M., she died.

AUTOPSY.

Brain.—Tuberculous meningitis. Tubercles most plentiful on the right side; the convexity on the right side was full of tubercles; there were few on the left. The arachnoid was thickened; the brain-substance was softened and there was an increased amount of fluid in the ventricles.

Lungs were found studded with tuberculous de-

posits. In the right lung were several small cavities and cheesy masses, in the left there were no cavities but several cheesy nodules.

Liver, Spleen, and Kidneys, each contained a few tubercles.

Intestines were the seat of inflammation from the duodenum down; there were no tubercles visible on the peritoneum but the mesenteric glands were enlarged.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, PHIL'A.

SERVICE OF D. HAYES AGNEW, M.D., LL.D.

(Prepared for the HOSPITAL GAZETTE.)

POPLITEAL ANEURISM.

Ed. Hay, white, æt 32. Admitted Jan. 22, 1875. A painter by trade. Presented upon admission the history of a traumatic aneurism, dating back to last November and produced by falling from a street car. He continued to follow his occupation until one week ago, when the pain compelled him to stop working. The aneurism is situated in the left popliteal space, is sacculated and about the size of a goose egg.

Jan. 29th. Digital compression commenced at 6 P. M., and kept up until 9 P. M., on the following day. Pulsation ceased at 4 P. M., on the 28th.

Jan. 29th. P. M. Vomiting.

Jan. 30th. Noon—slight pulsation in tumor, commenced pressure at 8.30 P. M., and continued without interruption until 1 P. M., on Feb. 4th. when, slight pulsation still remaining the limb was elevated and flexed upon the abdomen. Patient only took $\frac{2}{3}$ of a grain of morphia during all this time.

Feb. 7th. Foot was found to be discolored so limb was lowered.

Feb. 24th. Dry gangrene has set in. Line seems to be forming at the middle of the leg. Patient in bad condition and takes but very little food. Brandy f 3 viij daily in milk punch.

Feb. 26th. Poultice applied to leg and foot. Brandy increased to f 3 xij. Extensive bed-sores having formed they were dressed with salicylic acid ointment. Pulse very quick and feeble.

March 20th. All the soft parts separated. Sawed off bones in middle third of leg and dressed the stump with salicylic acid gr. xij to 3 j.

March 31st. Discharge from leg profuse. Bed-sores almost well. Stopped the ointment and strapped the stump. Condition greatly improved within last two weeks.

April 2nd. Less discharge from leg. Doing well.

April 9th. Considerable discharge from leg. Strength improving. Bed-sore healing. Dressed it with an astringent ointment of plumbi acetat.

April 13th. Bed-sores have been touched up for some days past with nitrate of silver. They are now healing rapidly. Leg has healed up to the bones but they still protrude.

April 14th. Had an attack of vomiting.

April 15th. Vomiting stopped. Bed-sore very much worse and sloughing in its centre.

April 17th. Aneurism seems larger and pulsates more forcibly. Bed-sore breaking down and sloughing.

April 20th. Bed-sore better and is closing up. Leg improved.

April 26th. Suffering great pain in the aneurism. Knee much swollen and very painful. Ordered morphia, elevation of limb and cold water to the parts.

May 10th. Aneurism much larger and in one spot looks very thin as if it would soon give way.

May 12th. Ligated the femoral artery at the apex of Scarpa's triangle. Stood operation well.

May 16th. Doing well. No discoloration of leg, but temperature keeps high.

May 25th. Ligature came away from femoral to-day.

June 10th. Doing well until to-day when vomiting came on and was only relieved with great difficulty.

June 20th. Sitting up in bed. General health excellent.

July 10th. Up and walking about.

TRANSLATIONS.

PULMONARY TUBERCULOSIS.

BY
DR. KUNZE.

Translated for THE HOSPITAL GAZETTE.

FROM H. KUNZE'S *HEILKUNDE DER BRUSTKRANKHEIT*.

Until very recently Laennec's teachings were prevalent in medicine. According to them every case of phthisis pulmonalis was of tubercular origin; and since the time of Bayle, all cheesy substances found in the lungs had been regarded as tuberculous. Phthisis pulmonalis may, however, depend on many different pathological conditions, and tuberculosis is but one of these conditions; and, further, tuberculosis is quite rarely the cause of phthisis as compared with other pathological conditions. We have seen, in the last chapter, that chronic catarrhal pneumonia is the most frequent cause of phthisis, because it is most often followed by cheesy degeneration. If many and different pathological changes have cheesy degeneration as their common termination, it is impossible to consider cheesy material found in the lung identical with tubercle; only a part of it belongs to tuberculosis and for the same reason it is necessary to differentiate between the causes of cheesy degeneration, if we would avoid the old mistake of the ontological division of disease into marasmus, dropsy, etc. Tuberculosis is a pathological condition of a *specific* character, and has its own histological changes, which are well marked as such.

The small tubercles, which should be considered as neoplastic growths, known from their size as milary tubercles (from *milium*, the grain) resemble according to Virchow's observations, during the early period of their existence a granulation formation and consist of very soft, weak cells, which are easily injured by pressure and which then only show "tree nuclei." The composition of tubercles can easily be observed in those of the pleura or peritoneum, while the examination of young pul-

monary tubercles is very difficult. The tubercle resembles in its essential parts a lymphatic, new formation, the cells are round, of very different sizes, "mostly smaller than white blood corpuscles, occasionally, however, of larger size, as much as twice or three times their diameter. The cell body is colorless, transparent, faintly granular, and, as stated before, easily broken down, so much so that by the addition of water or some other fluid, slight pressure or incision, it may be destroyed. In the interior of the fully developed cells there is a single small, almost homogeneous, sometimes shining nucleus, which, however, is sometimes larger, markedly granular, possessing several nucleoli. Larger cells contain sometimes from two to twelve nuclei; these numerous nuclei are often small and rather smooth, but those in the same cell are not of equal size—occasionally they are large and granular. Between these cells or nuclei lie small netlike arrangements of connective tissue fibres. Sometimes vessels pass through, the majority of which are not newly formed, but belong to the old vascular system. Early in the disease the young tubercles are generally scattered through the lungs in countless numbers, they are of equal size and of an opaque grayish appearance; the immediate neighborhood often presents a zone of parenchyma in a state of catarrhal inflammation, especially if the tubercles already form larger masses. The seat of the small masses is the connective tissue of the lung, sometimes exclusively that part of connective tissue which forms the walls of the capillary bloodvessels and the adventitia of the smallest arteries and veins (Deichler, Colberg); oftener the interlobular and the inter-infundibular tissue, which latter is frequently thickened by the tubercles in its borders (Rindfleisch). According to the observations made by Billroth, the tubercular cell-groups are often developed in the corners which are formed by the division of vessels into smaller branches. The alveoli, provided that there is not a catarrhal condition present at the same time, take part in the process only in so far as their lamina become distorted and compressed; and the air which they normally contain is consequently expelled. If a catarrh of the alveoli is present at the same time, which occurs very often and almost seems to be a direct consequence of the tubercles, they are filled up with masses of young cells—a condition of chronic catarrhal pneumonia—the part of the organ affected in this way appears swollen and of larger size than normal.

A very important question is, where do the cells of the young tubercles originate? Formerly they were considered as proliferations of the connective tissue cells; a theory which is even now held by many observers. Cohnheim's experiments, however, also admit the supposition that the young tubercles are emigrated white blood corpuscles, and this theory seems to be supported by the fact that these cellular elements very often accumulate in the tissue not far from their point of exit from the bloodvessels, that is at those places where the small vessels are subjected to marked bending, where the most favorable condition for the emigration of white blood corpuscles—a slow circulation—exists. Such a condition can be best studied in tubercles situated in the diaphragm (Billroth).

That, on the other hand, tubercular cell-accumulation cannot depend on the emigration of white blood corpuscles alone, may be best proven by the fact that tubercular cell-accumulations have been found where there are no blood vessels. (L. Meyer, Virchow's Archive, vol. 30, p 64.)

Tubercles are found in the lung either *more or less symmetrically distributed throughout the organ*; or they appear *isolated, or collected in groups*, and in the latter case they are gathered so closely together in a portion of the lung, that it seems to consist entirely of tubercular masses, while on careful examination it can be seen that such masses consist of a very large number of single tubercles, forming a "tubercular conglomerate."

The tubercular deposits almost always begin in the apices of the lungs, preferably in the apex of the right lung, thence progressing downwards in such a way that always a higher degree of development is found above than below.

The consideration of the further changes which the tubercles undergo is of great importance. Bayle mentions a capsule of connective tissue which is formed around the tubercle and he actually speaks of *encysted tubercles*. Indeed, not unfrequently numerous small, nearly round, whitish bodies are found in the lung, sometimes forming net-like masses, resembling in size and form milary tubercles, but Virchow has shown, that on microscopic examination, they prove to be cross-cuts of very small bronchial tubes, the lumina of which are filled with cheesy material and the walls of which are thickened by peribronchitis. By microscopic dissection it is easy to recognize the more fibrous formation of the cortical portion. Such formations resemble true tubercles to a considerable extent, but they should not be mistaken for them. Rindfleisch claims lately that these knots are produced by the filling up of small lymphatics with cells (*Lymphangioitis nodosa*), because he has found them where there are no bronchial tubes and because they follow the course of the lymphatics. Virchow had himself formerly given this explanation, but he afterwards arrived at the other conclusion, just mentioned.

The common and almost constant termination of pulmonary tubercles is *cheesy degeneration*. A few fat globules are gradually formed in the single tubercle cells, while the cells losing their watery constituents, shrink and break down. This process always commences in the centre of the knot and gradually progresses from there towards the periphery, until finally the entire cell accumulation forms one mass of cheesy material, consisting of irregular remainders of cells, presenting sometimes well defined corners and having under the microscope a peculiar shining appearance, (*Lebert's tubercular corpuscles*) and presenting a small number of fat globules with a large mass of molecular, fine granular detritus. Only while the single tubercular corpuscles have not yet entirely undergone cheesy degeneration, while true tubercles can still be recognized, at least, in the periphery, is it possible to make a diagnosis—anatomically—of tubercles; if the entire tubercles have broken down to cheesy material, it is impossible to say what the origin of the cheesy masses has been. But as the individual tubercular deposits follow each other at intervals, we

are almost certain even in cases of long standing of finding young tubercular corpuscles, besides those that have undergone cheesy degeneration.

As soon as the single tubercles which lie closely to each other in groups, have all undergone cheesy degeneration, the small quantity of connective tissue which still separates the tubercles, breaks down, the cheesy deposits become confluent, and a larger deposit of cheesy material is formed, a cavity which is filled with cheesy matter. The inner surface of such a cavity remains for a long time in a ragged condition and it differs in that way from the dilated bronchiotubes of fibrous phthisis, which always present a smooth surface at first. Later in the course of the disease such differences cannot be observed. The enlargement of the tubercular cavities takes place by further cheesy degeneration of the tubercles in their immediate neighborhood.

It is a recognized fact that tubercular cavities increase in size much less rapidly, than those depending on the cheesy degeneration of chronic catarrhal pneumonia. In consequence of the slower enlargement of the cavities of tubercular origin, the blood-vessels in the affected part have in such a case more time to become obliterated. It is for this reason that copious hemorrhages usually occur at a latter period in tuberculosis, that in cases of chronic catarrhal pneumonia. In the further course of the two diseases the destruction of the lung, whether depending on cheesy degeneration of tubercular masses or those originating from a catarrhal inflammation, is the same, especially as not unfrequently the two conditions are combined. If this combination does not occur, it is remarkable that even with a great deal of destruction depending entirely on catarrhal conditions, pleuritic adhesions and thickening of the pleura are seldom found—almost never; while, on the other hand, in tuberculosis, even in the *earliest stages of the disease, extensive adhesions between the pleura costalis and the pleura pulmonalis* are found.

As an exception to the general rule tubercles sometimes undergo *fatty degeneration*. A large number of fat globules become deposited within the tubercle cells, the cells finally break down and a fatty emulsified detritus remains. Even with the naked eye this process can be recognized by the fact that the tubercular masses take on a yellow appearance, while if they undergo cheesy degeneration they have a whitish or grayish-white color. Because resorption is possible after all the material has undergone fatty degeneration, Virchow is inclined to believe, that in such cases perfect recovery may take place, although a process of this kind in all its stages, ending finally in recovery has not been anatomically proven.

In some cases calcareous degeneration—*petrification*—occurs, being the most favorable termination, putting an end to the dangerous character of the tubercular disease and leading to recovery. Such isolated concretions are found not infrequently in the lung of old people, and we have reason to suppose that in the first stages of tuberculosis, and where the number of tubercles is but small, recovery may take place by this mode of termination.

Tuberculosis may be limited to the lungs, or it may be diffused through many other organs—*localized or disseminated tuberculosis*. From the exami-

nations of Lewis, Mohr and Hasse, it can be seen that the bronchial glands in about the fourth part of all cases are also tuberculous, that in the mucous membrane of the larynx and the trachea, also in the cervical gland in about the twentieth part, in the mesenteric glands in about one third, and in the intestines in about one half of all cases of pulmonary tuberculosis, tubercles are found. The different serous membranes generally present the formation of tubercles in the following order of frequency: pleura, peritoneum, arachnoid, pericardium. Of the male genital organs it is mostly in the testes, and of the female organs it is the mucous membrane of the fallopian tubes that tubercular formations—sometimes extensive—are found. (Hasse, diseases of the circulatory and respiratory organs). The salivary glands, the muscular system—excepting that, in the heart, tubercles are occasionally seen—thyroid, mammae and ovaries, are almost invulnerable to tuberculosis. (Virchow.) The pleura pulmonalis and the pleura costalis are, as has been stated before, always, and often in the earliest stages of tuberculosis pulmonalis, more or less adherent to each other, commencing at the upper part and often extending from there over the entire surface of the lung. The different lobes of the lung, too, become adherent to each other, and the base of the lung sometimes adheres to the diaphragm. These adhesions are generally so strong, that it is with difficulty that the lungs can be removed from the thorax for examination.

The *weight of the different organs*, especially of the lungs, spleen and liver is, according to the examinations of Clendinning, in tuberculous subjects *increased*, and the *marked decrease* in the weight of the body—in the average somewhat over 50 lbs.—is *due solely to the entire loss of adipose tissue*. The increase in the weight of the liver is due in most cases to fatty infiltration of this organ.

Ætiology and Pathogenesis.—Notwithstanding the numerous scientific examinations of our day, the pathogenesis of tuberculosis is still involved in doubt. The accepted theory was formerly that a certain diathesis, a *tubercular dyscrasia* was present in the body, and that it was the cause of the formation of the heteroplastic lymphatic deposits, the tubercles, in the different organs. Although nobody could describe the specific character of this deranged condition of the blood, and all experiments to produce this dyscrasia by bad air and insufficient nourishment were unsuccessful. The essential part of the diathesis, its true character, which is responsible for the production of tuberculosis, remained unknown. From a scientific point of view, we are certainly not justified in accepting the hypothesis of the existence of particles in the blood which cannot be proven to be there. Attempts were afterwards made, by inoculation and injection of different materials, to produce tuberculosis in animals, and the history of these experiments has shown how many erroneous deductions have been made.

One direct result of the experimental inoculation of tuberculosis was the conclusion that miliary tuberculosis was due to resorption (Hoffmann, Waldenburg) or the reception of diffused corpuscular elements into the circulation, and deposit of the same, in the form of nodules, at many different

points in the different organs. The most important and the most frequent cause of it would be the accumulation of cheesy material in any of the organs of the human body, these cheesy masses being produced by deposits of inspissated pus and by lymphatic glands which have undergone cheesy degeneration, as frequently found in scrofulous subjects. Aside from the fact that these conclusions arrived at, after experimenting on different animals, are not binding for human pathology, and, aside from the statement which careful (Virchow) observers have made, that they have never found true tubercles in animals, either of spontaneous origin or experimentally produced, it is said by Klebs (Klebs and Valentine, Virchow's Arch., vol. 24, Nos. 1 and 3) that cheesy material by itself never can produce miliary tubercles. The fact that the frequent occurrence of cheesy masses does not at all correspond with the occurrence of tuberculosis seems to strengthen Klebs' statement. Aside from this, in many cases of tuberculosis especially when developed in adults, cheesy deposits cannot be detected at all; the cheesy degeneration of the bronchial glands which is often encountered in tuberculosis of children, should be more properly considered as the consequence of pulmonary tuberculosis, than as its cause. On the other hand, it is not improbable that tubercle and its product (specific cheese) have infectious properties (Villemin). The progress of tuberculosis and its disseminated general occurrence all over the body, resembling metastatic propagation, is probably owing to this infectious property. According to the observations of Klebs, tuberculosis extends itself constantly, especially by way of the lymphatics and resembles in this respect very much the course of the malignant infectious tumors.

Tuberculosis seems to be a disease which is developed only during *extra uterine* life. Those cases of Billard, who claims to have found tubercles in five new born infants; the case of Hussen, who reports that he found softened tubercles in a fœtus 7 months old, and a similar case of Kennedy's, in a new born child, seem to be doubtful, because *all* other observers declare that they have hitherto never found tubercles in the fœtus.

There can be no doubt that tuberculosis is a *hereditary* disease. In certain families every generation loses some of its members by it, and other families have even entirely died out from tuberculosis. Sometimes it overlaps one generation and appears again in the following one. By marriages of members of tubercular families with persons of healthy stock the tendency to hereditary tuberculosis is not always diminished. From a comparison of the histories of 500 tubercular families observed in my practice as examiner for an insurance company, I am led to the conclusion that inheritance of tuberculosis is more often observed when the father than when the mother had been tuberculosis, oftener if the child was born shortly before the death of one of its tubercular parents, than if the mother or father died from that disease many years after the birth of the child. In many cases, but not in all, inheritance may be suspected from the formation of the thorax. It presents all the peculiarities which have been mentioned in the

last chapter, when speaking of the "*phthisical habitus*." If inheritance goes hand in hand with a phthisical habit the development of tuberculosis may be expected with a great deal of certainty. It would on the other hand, be a great mistake to suppose the non-inheritance of the disease because of the good formation of the thorax.

In tubercular families even in persons with a well formed thorax and fully developed lungs, the disease often develops itself. Wherein the peculiar nature of those lungs consists, which are predisposed to the development of tubercles, is at present not well understood. We only know that those lungs are not of normal development, and it is probable that the *weakness and diminished power of resistance to injurious influences* as a direct consequence of this fault of development, is at least one sign of the predisposition. Virchow says the predisposed lungs are "hereditarily more vulnerable, more disposed to inflammation," than normal lungs; but this explanation would not answer for those cases where tuberculosis pulmonalis is developed without any inflammatory sign whatsoever.

Most frequently the disease is formed during the *years of development*, from the 16th to the 20th year, probably because it is most apt to occur at this age, that the great demand made on the existing material for the final development of the human frame, causes a misproportion between the material which exists within the body or can be introduced, and that which is used up. Later in life, not unfrequently, debilitating diseases, nursing, and of pulmonary diseases, even chronic catarrhal pneumonia, are the direct causes of the development of pulmonary tuberculosis. Such conditions as those just mentioned, are most favorable for the development of the so-called *spontaneous acquired tuberculosis*, in the production of which heredity is *not* active.

According to the course of the disease two forms are recognized, an acute and a chronic pulmonary tuberculosis.

(Concluded next week.)

EXTRACTION OF CATARACT.

In the *Klinische Monatsblätter für Augesheilkunde* for May, L. von Wecken gives the conclusions he has arrived at, regarding the merits of a modification of von Graefe's linear operation for extraction of cataract—a modification consisting mainly in placing the incision more towards the limbus, making the flap of greater height and more crescentic than in the original model. In all these respects the incision exactly resembles the one practised by many of our best American ophthalmologists. In addition v. Wecken makes a more limited iridectomy, not excising the iris at the attached margin, but a little short of that point, so that the pillars of the coloboma run together. He gives a private letter of the late v. Graefe to himself, in which the great ophthalmic surgeon lays great stress upon the linearity of the incision, and insists that the increased success attending his method is due to this, but v. Wecker claims that few, if any, still practice the true linear incision or place the incision so far in the scleral border as did v. Graefe. "The

experience of 130 years," says v. Wecker, "teaches the greater the ease with which the lens is extended and the better the wound heals, the more rapid is the recovery and the more brilliant the result, and we must therefore make as large a wound as we can without risking an accident during the operation * * * * I am convinced that the linear incision in spite of v. Graefe's advocacy will be wholly given up and that flaps of greater or less height will be made, and that eventually the incision will be generally made exactly in the sclero-corneal border." If the cataract is simple, ripe and of the hard variety, he advocates a large flap (4 mm. high) and removal without iridectomy if possible, trusting to the use of eserin sulph. to prevent prolapse of the iris, but if unripe, overripe or partly soft, he makes a flap about 3 mm. high, and excises the iris only to a point near the attached edge. He uses eserin sulph. and an antiseptic bandage (dipped in sol. of boracic acid). His statistics are as follow: From 1869 to 1876, inclusive, 1107 extractions (partly by Graefe's operation and partly with low flap), with 2.2% suppurative trouble, and 4.27% of closed pupil. From 1877 to 1878 inclusive, 444 by the new operation with 12 suppurative cases, and 2.5% closed pupils, with 92% successes, 5% partial successes and 3% failures.

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HÆMATEMESIS IN AN INFANT.

As this condition in infants is of very rare occurrence, it may prove both interesting and instructive to place on record the particulars of a case which occurred recently. On June 17th, I was summoned in great haste to attend an infant, five days old, who had vomited milk mixed with blood, sufficient to stain markedly the dress and sheet. The mother was considerably alarmed, having recently returned from India, and suffered much from fever and ague, almost up to the time of her confinement. She feared the hæmorrhage must be due to some disease of the child's liver or spleen; and, on my arrival, was in a state of intense anxiety at the prospect of losing her infant. The blood was of a bright arterial color, and gave the impression of having been slowly and thoroughly mixed with the milk. It must have continued flowing during a greater part of the time that the child was sucking, judging by the tint of the vomit. My first thought was to examine the mother's nipples; and there undoubted evidence of blood having been drawn from the left nipple was apparent, the apex being coated over with recently coagulated blood. The explanation was sufficient to allay the mother's anxiety. The employment of an astringent lotion, the use of a nipple-shield, and a little extra care in nursing, prevented any further bleeding. The infant is thriving and healthy, and presents no indications whatever of there having been any internal disorder to account for the hæmatemesis. The mouth was examined at the time, but no trace of any scratch or wound could be detected.

A somewhat similar case occurred a few weeks since at the Lying-in Hospital, which for the time caused much unnecessary alarm, and was also due to an excoriated nipple.—ARTHUR W. EDIS, M.D.—*Brit. Med. Jour.*

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EDITORIAL.

MEDICAL RELICS OF COLONIAL DAYS.

As is the mould formed, so will the cast be fashioned; the size, style and shape will be fixed within its limits. Intellectual casts know no different law, their shape and size is determined when the mould is made. If the lines and proportions fail to give pleasure to the sight, not the cast, but the mould is at fault, and the change must be made at the proper source to accomplish improvement. The school is the mould of the intellect, and as they are numerous, so are the styles of the intellect varied. Each school produces a distinctive variety, if it has well-founded claims to rank as an educational institution, and its graduates carry with them through years, until the school of life wears upon them, the impress, peculiar and familiar to it. Man seldom errs in judging of the school whence comes a master mind.

We, then, have not been amiss in our suggestion for advancing the appointments of medical colleges, in urging them to adopt a higher standard and aim. Their work has been subjected continually to ribald jokes, not being classed as deserving criticism by the laity; while within the profession itself, the failure of the college is almost everywhere confessed. Practitioners are abundant, but scientific family physicians are few; the natural genius of the latter, with the training and discipline of their minds, acquired in the common schools, has enabled them to perfect themselves in medicine by experience, after absorbing some general ideas of the subject in the college. The doctor makes himself, and feels but slightly indebted to the special school for his professional success. Scarcely a week passes that does not bring with it an arraignment of the medical colleges by some good authority, and it is certainly

time that some positive and radical change should be effected to better the profession and to rid the colleges from their burden of infamy.

We would not attempt to discuss the question of the efficiency of these institutions, without first announcing that our conception of them involves nothing beyond that of a school, in which certain branches should be taught to prepare the graduates for a special branch of duty. They are not patented processes for supplying intellects, nor are they royal roads to wisdom; lastly, they are not miracle workers; they are simply schools organized for a definite and praiseworthy purpose. Such is our conception of what they ought to be at best; our ideal, so unadorned, so unpretending, may not be reality to-day.

As a school designed to effect a certain purpose can properly receive only such persons as students, whose acquirements reach at least the minimum point in the desired advance ground, the candidates for admission to a medical college must be subjected to a rigid examination in all the elementary branches by their prospective teachers. This examination of credentials in full by the parties most interested in the future progress of the pupil, is an established rule in the educational world, and is founded upon correct principles. Educators never attempt conic sections with classes that have not mastered geometry and trigonometry, and the blacksmith never puts the bellows-boy to temper a tool, who has not learned to forge a horse-shoe. Teachers of the science of medicine cannot evade the stringent application of this rule, if they propose to engage in educational pursuits. Their material must be properly conditioned before they undertake to work with it. Within the scope of the present article it will be impossible to outline the extent of that examination, since such bitter and lengthy discussions have been had upon many of the subjects. Our *dictum* would include among others, Natural Philosophy, Chemistry, Anatomy, Physiology, Botany and Latin, which is the language of medical science. Pupils sufficiently versed in these studies are prepared to commence a course in medicine; without this preparation they will prove unable to progress. Argument is not needed to demonstrate this proposition to impartial readers. It remains for us to say that where the preliminary examination is not exacted, there is evident incompetency, dishonesty or other unjustifiable motive exercising control. Such medical colleges are a curse to the rising generation, who are prone to take long leaps, if permitted, in their young days, when their lively imaginations suffice to fill the place which the gathered wisdom of years fails to fill in after time. The young are encouraged to leave the preparatory school before

they should, and they are lectured in the medical colleges about subjects, to them entirely incomprehensible, and they end their education with that performance, for their days of preparation have gone. Some of these colleges, many of them, diploma these ill-guided youths, who try to practice, and the profession of medicine is borne down by their miserable work. The young, thus deluded, and the profession thus disgraced have just cause to denounce these colleges for the hap-hazard pupils; the more effective and costly the denunciation, the better for the world. It is painful even to repeat the dishonest plea offered in extenuation, that, in order to meet the expenses and pay salaries, all students tendering the amount of tuition are to be received. Whatever may be the wording of the excuse, its gist as it appears to others, is plainly put in those few words. So long as such gate-keepers stand at the portals, medicine may expect to be blighted by imposture, quackery and empiricism.

Having secured classes of students through the operation of proper tests, there must be supplied thoroughly qualified instructors, not physicians, with A.M., LL.D. etc., ad. lib. merely, but experienced instructors. The day has long since passed when the possession of knowledge is supposed to carry the ability to impart it successfully; now, we know that teachers, like poets, are born, not made. Neither gray hairs, nor many titles, nor extensive practice makes an instructor. Teaching is an inborn faculty vouchsafed to few, and those so endowed are imperatively required in these schools. The second element of non-success in the colleges then, comes naturally from the failure to provide true teachers; the authorities preferring to secure a large attendance, and its consequence, greater pecuniary returns, by using the names of distinguished physicians, the brass ornaments, their partial services also. Our ideal college has been a *school* from the beginning. Now that the college is in operation, it is still only a school, nothing more. To the end of the course it would not, because it could not lose its identity as a school, in which the students are only pupils. So long as it preserves its own status, not leaning upon an outside support, the result of the labor therein will be satisfactory. With each student this school will be identified, and his interests carefully heeded by the school, during the intimate connection between them. Graduate him, expressing to the world that the school has finished to its satisfaction the contract undertaken between them, and at this point active relations of the school and scholars entirely cease. There is left only the generous tie of sympathy that ever binds the pupil to the place in which his mind was warmed into activity and his moral character was established as upon a rock.

Now, fully equipped, if the former pupil yearns to do what little he can for suffering humanity as a doctor, let him apply to those who have the honor and dignity of the medical profession in their keeping, let him apply to the profession, whose board of censors, appointed for that purpose because of their acquirements and freedom from prejudice for or against applicants, will adjudge his fitness to assume the responsibilities of the position. Certainly his college professors are barred from sitting in judgment on his application, since they are interested in maintaining the reputation of their college by having their graduates admitted to the profession. Medical college professors are not purely angelic in nature, therefore are swayed, undesignedly it may be, by their wishes and hopes, and will and must favor their own intellectual bantlings. The world-wide weaknesses of human nature control even these learned gentlemen, and they must not be tempted with the sole direction of the professional latch-string; their responsibility in providing a plan of redemption, rapidly and generously developing good moral characters for many of their charge, to be displayed on paper at the final examination, is trying enough. More than this, one of the strongest incentives to effective efforts on the part of the teacher is thrown away when he is to be the final judge of his own work, and he needs prodding at times in his tread-mill life. Who fails to see that the prospect of a competitive test, with the graduates of other institutions, conducted by strangers, fully qualified and appointed for that purpose, will keep the teachers on the alert, hold the pupils to their tasks, making the school more perfect, and, in the end, elevating the profession.

The matter of the graduation from a school taking the place of an examination for admission to the profession is a very important one, and the present situation is not to be commended, either in its effect upon the school or the profession. Medical colleges have a pecuniary interest that does not work harmoniously with the interests of the profession, unless proper restrictions are placed about them. The unsatisfactory condition at present is not to be complained of much longer, the profession must take possession of its gates of entrance. After a lively agitation of the subject by some leader, who will risk the abuse of the present system's friends and protégés for a time, knowing the reward to be secured with the triumph, petitions from the profession will enlighten legislatures, and a statute will provide what professional dignity should have done. The medical profession has been governed long enough by the colleges, and the reverse picture would gratify us; the admitted superiority of

the profession would be more in accordance with reason. The tail has wagged the dog, until the animal is about ready to growl, perhaps bite.

The present Medical College system is a relic of good old Colonial days. It was the most perfect substitute that the age and opportunity permitted, but we have outgrown its proportions. It is not adapted to our needs; no more than the old log school house would be for the purpose of the common school. The makeshift policy that a sparsely settled country demanded, kept in operation now that we begin to feel the pressure of crowding, tempts the incompetents, the quacks and the impostors to seize the opportunity to don a professional garb, and strut about as grandly as the rest.

Progress in medicine, demands qualifications for students, true teachers, and a high standard for graduation, so far as Medical Colleges are concerned; farther and more earnestly, it demands that the profession shall have sole power to judge of the fitness of applicants for membership.

We need a new mould, the fashions have so wonderfully changed, within the century, that the casts are unsightly, ill-proportioned.

SELECTIONS FROM JOURNALS.

GOOD EFFECTS OF AMMONIACAL SULPHATE OF COPPER IN NEURALGIA OF THE FIFTH NERVE. (TIC DOULOUREUX.)

Dr. Féréol having found several times obstinate cases of neuralgia of the fifth nerve, which had resisted a variety of other means, rapidly and completely cured by the administration of ammoniacal sulphate of copper, reports to the Académie de Médecine (April 1st, 1879) on the subject (*La France Médicale*, April 5th). The first case is that of a strong man, aged thirty-two, who had suffered so atrociously from terrible neuralgic crisis that on some days he was scarcely free for a few minutes at a time. Six teeth had been vainly extracted, and anti-neuralgic medication exhausted. He then tried ammoniacal sulphate of copper. The amelioration was considerable on the first day; on the second, the patient slept all night for the first time in two months; and at the end of ten days he left the hospital cured. A second case of supra-orbital neuralgia in a strong young man, occurring every morning and ceasing at noon, had been vainly treated by leeching, blistering and full doses of quinine. The ammoniacal sulphate of copper, given in a dose first of all of 0.10 and then 0.15 centigrammes daily, produced an immediate amelioration of pain, and the patient described himself as cured. The medication was continued for a week, and the neuralgia did not return. Similar effects were obtained by M. Féréol in a lady, aged forty-three, delicate, nervous, but not hysterical, suffering from persistent right hemicrania, with atrocious pain in the fifth pair of nerves, which drove

her almost wild, and for which she had vainly tried quinine, aconite, morphia, hypodermic injections, etc. Similar results were obtained in an old man, aged sixty, suffering for eighteen months from a horribly painful neuralgia, starting from the nasal branch of the fifth, and in whom local and general treatment by the oldest of anodynes and anti-periodics had been vainly tried. In this case the results were not permanent, the patient having an invincible dislike to the sense of nausea produced by the sulphate of copper. The formula employed is the following: Distilled water, 100 grammes; syrup of orange flower or peppermint, 30 grammes; ammoniacal sulphate of copper, 0.10 to 0.15 centigrammes, to be taken in the course of twenty-four hours, especially during food, in order to avoid irritating the stomach. In one patient, the dose was raised to 60 centigrammes a day without any other inconvenience than slight gastric pain and a little diarrhoea. The medium dose was 0.10 to 0.15 centigrammes, which should be continued for from ten to fifteen days, even after the complete disappearance of the pains.—*London Med. Record*, June 15, 1879.

ON THE PULMONARY COMPLICATIONS OF TYPHOID FEVER.

The following are the conclusions to which GUILLETMET has arrived (*Thèse de Paris*, 1878): 1. The symptoms of typhoid fever may be classed under two heads, as derived from congestive or destructive lesions. 2. The congestive symptoms are particularly marked in the skin, the intestines, the brain, the lungs, and in other viscera. 3. The lungs are always congested in typhoid fever. These congestions are not stationary in the first stages of the disease, but may easily be drawn to some other place; therefore, counter-irritants applied to the skin will always prove useful. 4. Later on the pulmonary congestion is caused by stasis, which frequently originates in degeneration of the heart. 5. The stasis in its turn causes enlargement of the spleen, acute oedema, and bloody infiltration of the lungs. The enlargement of the spleen is complicated with catarrh of the bronchi, which gives rise to the emphysema that is occasionally observed. 6. Inflammation of the lung occurs sometimes, generally in the shape of lobular, lobar, or interstitial pneumonia. 7. True pneumonia is very rare in typhoid fever, it is almost always a pseudo-pneumonia. If true pneumonia, complicated with hepatization, should come under notice, it will always be on the fourteenth day of the illness, and during convalescence. 8. Tuberculosis has often been observed following in the rear of typhoid fever. 9. The complications of typhoid fever which do not often come under observation, are primitive pneumonia, pleurisy, hæmoptysis without tubercles, pneumothorax, infarcta, and gangrene of the lungs. 10. Primitive pneumonia in typhoid fever is a rarely occurring affection, and it is often difficult to prove that the fever was the primary affection. 11. Pleurisy occurs very seldom without inflammation of the lungs; it generally develops towards the end of the illness or during convalescence. The exudation may be very considerable, and have no tendency to

be reabsorbed. 13. Hæmoptysis has sometimes been observed; it is mostly a symptom of a pulmonary apoplexy, but may also be caused by the patient's having taken cold. 14. Pneumothorax has once come under observation in the course of typhoid fever, though there were no lesions of the lungs sufficiently considerable to explain their rupture. 15. Infarcta have often been found in the lungs of typhoid fever patients. 16. Infarcta are often the cause of secondary inflammations of the lungs of the pleura. 17. Infarcta on a whole originate in the decreasing energy of the cardiac action, through which coagulations form, and thereby give rise to emboli. At other times these emboli come from some gangrenous or purulent part of the organism, when they have a typhoid character. 18. In the same way the gangrenous affections of the lungs may be explained. 19. If an embolus should be thrown into the principal trunk of the pulmonary artery, or into one of its principal branches, death is rapidly caused by asphyxia.—*Lond. Med. Record, June 15, 1879.*

ON HYSTERICAL ATTACKS OF GASTRIC ORIGIN.

M. Dally communicated to the Société de Thérapeutique at a recent meeting (February 12) the following two interesting cases which had come under his observation. The first was that of a young girl who was always taken with paroxysms of hysteriform clonic convulsions during the act of swallowing her food, principally of a solid nature. A slight touch or pressure of the stomach would also invariably cause a paroxysm, which would increase in violence if the pressure was greater. Besides those cases where the attacks were brought on by external causes, he noticed that these phenomena were always in some way connected with the passage of food through the pylorus. M. Dally treated the patient with electricity, applying the constant current to the region of the stomach; this at first brought on most violent attacks, lasting from four to five hours; but the treatment having been continued with the addition of "douches," the patient rapidly improved in health.

In the other case, the paroxysms were less violent, and never lasted more than three to five minutes. The patient was a lad of 13, in whom they also were caused by the passage of food through the pylorus. He was treated in the same way as the girl, and recovered rapidly. Both cases present a great resemblance to each other; perhaps the only difference being that in the girl the paroxysms were evidently of the kind noticed in hysteria major, whilst, in the boy, they resembled the twitching of St. Vitus's dance.—*London Med. Record, June 15, 1879.*

INTUSSUSCEPTION OF ILEUM INTO CÆCUM ASSOCIATED WITH POLYPOID TUMOR.

At a late meeting of the Clinical Society of London (*Lancet*, June 7, 1879) Dr. Coupland read notes of a case communicated by himself and Mr. Hulke, of intussusception of the ileum into the cæcum through the ileo-cæcal valve, associated with a poly-

poid tumor; laparotomy on the fifth day; great immediate relief; death on the seventeenth day. The case was that of a spare, old-looking blonde, sixteen years of age, of highly hysterical temperament, who was admitted into the Middlesex Hospital on March 11, 1879, having been seized the previous day with colicky pains and vomiting. She had just recovered from a similar attack, lasting a few days, and was said to have suffered in the same way some two years before. The bowels had been moved naturally that morning, but no blood had been passed. On admission the paroxysmal abdominal pain was the chief symptom, but there existed a prominent cylindrical swelling in the upper part of the right iliac region, and an area of dulness below this. There was no general abdominal distension, and no constitutional disturbance. The case being regarded as one of fecal accumulation and typhlitis, sedatives were given and enemata administered—the latter without effect. The vomiting, however, continued, being provoked by anything she took. The pain, less severe on account of the opiates, still remained, and no change took place in the swelling or extent of dulness. On the 14th she was obviously weaker, the vomiting was "bilious" in character, the abdomen more tympanitic. A large soap-and-water injection to the amount of four pints was returned discolored and with a peculiar penetrating odor. The question of intussusception (between which and the former diagnosis the case had always seemed to lie) was now seriously entertained, and Mr. Hulke was consulted. He found nothing on rectal and vaginal examination, and after a further consultation with Mr. Nunn and Dr. Cayley, it was decided (seeing the patient's critical state) that the abdomen should be explored. Laparotomy was accordingly performed, and Mr. Hulke detected an intussusception of the ileum through its lower end into the cæcum. Reduction being found impossible, the ileum immediately above was secured to the lower angle of the wound and opened. Great relief followed, the vomiting and pain entirely ceasing, and the pulse gaining in force; but thirty-six hours after the operation the patient sank from the peritonitis which was present at the time of operation. The post-mortem examination revealed an intussusception of fully three feet of ileum, through its lowermost six inches and through the valve, the invagination extending for a distance of twelve inches into the colon. The lips of the valve and the surface of the gut included between them were deeply ulcerated; much lymph occurred between the serous layers of the invagination, whilst the central tube was filled with blood-clot, except for its upper three inches, which was occupied by a firm fleshy cylindrical polypoid mass, about the size of the little finger. There was slight general recent peritonitis. The other organs were healthy. The obscurity in the diagnosis, the absence of mæna, the time that elapsed before the symptoms became severe enough to point to complete obstruction, and the fact that the vomiting never became stercoraceous, were dwelt on. It was pointed out that this variety of intussusception was of comparatively rare occurrence. The coexistence of a polypoid growth (it was lipomatous in character), and its situation at that part of the gut which was the last to become

invaginated, were also points of interest; the presence of the tumor doubtless preventing reduction as well as hastening the ulcerative process.—Mr. Marsh asked whether there were any cases of fecal obstruction on record producing such symptoms as this case presented; for it was plain that owing to the error in diagnosis much valuable time was lost, and when surgical aid was invoked the case had passed beyond the time when such interference would have succeeded in affecting a reduction of the intussusception. Mr. Hulke had done all that could be done; but it seemed as if physicians should seek for surer signs of diagnosis, so as to call in surgical aid early.

Mr. Bryant said the case was of great interest, but he confessed on hearing it that he felt much as Mr. Marsh did as to the question of diagnosis. It did not appear to him that the symptoms were such as characterize fecal obstruction. The patient was seized with an acute abdominal attack, which subsided and then recurred; and then unfortunately, when the diagnosis was made, Mr. Hulke had but little chance of doing good. The history of the case was peculiar. There was absence of tenesmus or discharge of blood-stained mucus, and possibly this might have led to the discarding the idea of intussusception. The presence of a polypus was very interesting; the invagination was clearly produced by an effort of nature to get rid of the growth. He referred to a preparation in St. George's Hospital Museum, where a growth similarly caused intussusception. He had thought that ileal intussusception through the ileo-cæcal valve was one of the most usual forms; and he remarked that blood was found in abundance in the invaginated gut, and yet did not appear externally.

Mr. Hulke, in reply, said that hemorrhage from the bowel when present was a valuable sign, but he had frequently found cases where there was no passage of blood. When, as in this case, the obstruction and strangulation of the gut are very acute, he should not expect that blood would have escaped. The wonderful rally the patient made after the operation from her deeply collapsed condition before operation was very interesting.

Dr. Coupland replied that the evidence in favor of intussusception when the patient was admitted was too slight to warrant his calling in the aid of the surgeon. The case lay between that and fecal accumulation with typhlitis, and no one regretted more than he did that in taking the simpler ground he had diminished the chances of recovery from early surgical interference, to the importance of which he was fully alive. At the same time, looking to the extremely strangulated condition of the bowel, and the position of the growth, firmly fixed as it was between the lips of the valve, he doubted if reduction could have been effected even if such interference had been made at the outset. Statistics show that this form of intussusception was by far the rarest of all forms, the commonest being that where, commencing at the valve, the invaginating cæcum drags the ileum after it into the colon.

New York, Dr. Andrew H. Smith, Chairman of the Committee on Restoratives, presented a report (*New York Medical Journal*, April, 1879) on this subject. From the facts before them the committee felt warranted in drawing the following conclusions:—

1. That defibrinated blood is admirably adapted for use for rectal alimentation.
2. That in doses of two to six ounces it is usually retained without any inconvenience, and is frequently so completely absorbed that very little trace of it can be discovered in the dejections.
3. That administered in this way once or twice a day, it produces in about one-third of the cases for the first few days more or less constipation of the bowels.
4. That in a small proportion of cases the constipation persists, and even becomes more decided the longer the enemata are continued.
5. That in a small percentage of cases irritability of the bowels attends its protracted use.
6. That it is a valuable aid to the stomach whenever the latter is inadequate to a complete nutrition of the system.
7. That its use is indicated in all cases not involving the large intestine, and requiring a tonic influence which cannot readily be obtained by remedies employed in the usual way.
8. That in favorable cases it is capable of giving an impulse to nutrition which is rarely if ever obtained from the employment of other remedies.
9. That its use is wholly unattended by danger.

—*Am. Jour. Med. Sci.*

A CASE OF ACUTE TETANUS TREATED BY STRETCHING THE GREAT SCIATIC NERVE.

(Under the care of MR. HENRY MORRIS, at THE MIDDLESEX HOSPITAL.)

Robert L., aged 7, was admitted into Forbes ward on Monday, June 9th, between two and three o'clock in the afternoon. Ten days previously, he had injured his left foot by having it crushed between the curbstone and the wheel of a cab. Blood was effused into the soft tissues around the ankle, and the skin in front of and below each malleolus was considerably contused, and over a small area on each side abraded. Lead lotion and a gutta-percha splint were applied, and the child was made an out-patient. At the time of the accident, he was suffering from a slight attack of bronchitis, otherwise his health had always been good. He was described by his father as being a quick, intelligent, and high-spirited lad, the youngest of six living children, none of whom had suffered from any nervous ailment, except that one brother had died in infancy in a fit during teething.

Up to June 6th, the foot progressed favorably; but on that day the contused skin on each side of the ankle looked as if it would slough; the bronchitis was quite well.

On Sunday, June 8th, about one o'clock, he complained of something being wrong with his mouth, "his jaw felt sore"; he refused to take his dinner, cried in the afternoon because "he felt very queer", and in the evening about eleven o'clock, when for the first time since the morning he asked for something to drink, a general spasmodic paroxysm seized

DEFIBRINATED BLOOD FOR RECTAL ALIMENTATION.

At a late meeting of the Therapeutical Society of

him. His friends were much alarmed by his crying (which was unlike him), and by the stiffness of the jaw, which came on during the afternoon; but this was much increased, of course, when they saw him seized with a sharp tetanic convulsion, and his trunk distorted by being thrown into a state of opisthotonos. Tetanic spasms followed in quick succession, so that he had had twenty or twenty-five between 11 P. M. on Sunday and his admission into the Middlesex Hospital between two and three o'clock on Monday.

On admission, his jaw was rigidly fixed, the sternomastoids and platysma were rigid and projecting, the abdominal walls very hard, the larger joints stiff, and the face marked with the peculiar tetanic distortion. This state of tonic tension of the muscles was frequently disturbed by severe convulsions which threw him into marked opisthotonos. There was below and in front of each malleolus a black slough, surrounded by an unhealthy narrow groove separating the dead tissue from the inflamed, red, and undermined edge of skin. That on the inner side was the larger, and of the size of a five-shilling piece. A probe could be passed some distance under the edge of the skin towards the front of the ankle-joint. The injuries were clearly confined to the soft tissues, the bones and joints being unaffected; indeed, so far as could be seen, the integumental and subcutaneous areolar tissues alone were involved. There was no loss of sensation beyond the wounds, nor any hyperæsthesia above them. Considering the acuteness and severity of the attacks, it seemed hopeless to look for any good from internal remedies or local applications, so Mr. Morris, remembering the successful case recorded by Mr. Key, at Guy's Hospital, decided upon giving the child the faint chance which amputation might possess. The mother, however, refused her consent until the father had been consulted later on in the evening; but, not liking to delay several hours, and having had the advantage of Mr. Hulke's opinion, Mr. Morris decided on stretching the great sciatic nerve at once.

At 5.30 P. M., he accordingly cut down upon it just at its point of emersion from beneath the gluteus maximus and before its passage beneath the biceps muscle; and, having separated the nerve from the surrounding tissue, he hooked his finger beneath it, and forcibly pulled upon it in both directions, until he lifted the loop of nerve quite out of the wound, jerking forcibly as he did so the whole weight of the limb. The wound was closed by three sutures, dressed antiseptically, and the thigh wrapped in a soft roller. Opium-fomentations were applied to the injured foot; a simple enema was ordered to wash out the rectum, and nutritive enemata to be administered every three hours if the patient could not swallow. Three minims of tincture of aconite in two ounces of camphor water, to be taken every three hours, had also been previously prescribed. Immediately the administration of the chloroform was discontinued, and before consciousness was restored, a very severe general spasm occurred; others followed in quick succession, some of them lasting about two minutes; and in one (about one hour and a half after the operation) the boy micturated involuntarily.

At 7.45, his temperature was 101.3°; pulse 160; respirations 48. Both limbs continued of the same

temperature. The arms were quite stiff; but the hands were limp. The lower extremities were similarly but less affected. The abdominal and intercostal muscles were tense. Respiration was of a peculiar character; the inspiration being, as it were, arrested by spasm, and then carried on to its full extent. There was, occasionally, a peculiar croupy noise in the throat. The mouth was closed, the head thrown back, and the chin forwards. The pupils were equal. The facial expression was peculiar, owing particularly to contraction of the corrugator supercilii and compressor nasi muscles on each side.

At 9.05, the face was bedewed with sweat, the cheeks were flushed, and a settled opisthotonic curve affected the back. Coarse moist râles were audible in the trachea. Every two or three minutes there was a convulsive seizure, during which the back became more arched, the abdominal muscles more rigid, the arms and legs stiffened in the paroxysm; but the hands and toes remained relaxed. Temperature 103°; pulse 160; respirations 58-60. Each spasm only lasted from two to three seconds, after which the breathing was hastened and then gradually returned to the previous rate.

At 10 o'clock, the spasms were becoming even more frequent and severer, and the child was, therefore, placed again under the influence of chloroform.

At 10.30, there was a marked difference in the temperature of the two legs, experienced by the naked hand; that of the affected side being lower. The convulsive attacks continued to occur at short intervals of five or six minutes, under the chloroform, up to 12 o'clock, when after one of them he died, apparently from exhaustion. The breathing was never of such a character as to require tracheotomy. A careful *post mortem* examination was made by Dr. Coupland, and the cord and the whole length of the nerves to the seat of injury were examined.

Mr. Morris made this case the subject of a clinical lecture, in the course of which he remarked that nerve-stretching had been practised for the cure of neuralgia and other painful and spasmodic nervous affections since it was first recommended by Nussbaum, and that within the last few years it had been tried in the treatment of tetanus. M. Verneuil is reported to have tried it about three years back upon a man "who, after a crush of the hand, suffered from symptoms of tetanus." He used traction upon the median nerve at the elbow, and upon the ulnar near the wrist. The man completely recovered. What degree of tetanus there was in this case of M. Verneuil—whether it was acute, subacute, or chronic, whether of a few hours' or of a day or two's duration—was not stated. More recently still, Dr. Eben Watson, had reported two cases in which he had stretched the cords of the brachial plexus. One was that of a boy sixteen years old, who, eleven days after an injury, showed tetanic symptoms, and who was operated upon four days later; but he had a spasmodic paroxysm after recovering from chloroform, and died on the following day in a general convulsion. The other was a man thirty-five years of age, who nine days after having his hand crushed evinced the first signs of tetanus.

The three nerves of the brachial plexus (ulnar, median, and musculo-spiral) were, as in the first case, stretched. A paroxysm followed immediately after recovery from chloroform, and death ensued during a spasmodic seizure on the thirteenth day after the operation. These cases together with the one now reported, were all the lecturer knew for reference. The present case differed from the others in its much greater severity and acuteness, and in the large size of the nerve-trunk operated upon. Like them, it ended fatally, but more rapidly so. He was bound to say that he had arrived at a different conclusion with regard to it from that formed by Dr. Eben Watson with regard to his cases; for Mr. Morris did not think that the progress of his case had been in the least retarded or mitigated by the nerve-stretching. On the contrary, the course of the symptoms seemed more severe and more rapid. Although he refused, with the present slight data upon which to form an opinion, to pledge himself to any decided conclusion, he could not help expressing his conviction that nerve-stretching in tetanus would not prove a favorable mode of treatment. It seemed to him unscientific in principle, and, so far, most unsatisfactory in practice. The idea was to destroy the conductivity of the trunk-nerve, so as to cut the spinal cord off from its communication with the peripheral nerves at the seat of injury. But, in doing so, a very severe shock or irritation was likely to be excited by the nerve-stretching itself; so that the condition of the cord, be it what it might, whether a material change, a state of excitement from irritation, or a "bad habit" induced by a "depraved current," seemed to him likely to be aggravated, not mitigated, by a new and great disturbance of the same nerve-channel at a spot much nearer to the spinal centre. But at present the matter must be considered as *sub judice*.—*Brit. Med. Journal*.

A RARE FORM OF INTESTINAL OBSTRUCTION DUE TO INVAGINATION OF A PORTION OF THE SMALL INTESTINE IN THE WALLS OF THE RECTUM—GASTROTOMY—RECOVERY.

At a late meeting of the Clinical Society of London (*Brit. Med. Journ.*, Mar. 8, 1879), Mr. Edward Bellamy communicated the notes of this case. The patient was a pale, delicate-looking woman, aged 34, of intemperate habits. She was admitted into the Charing Cross Hospital on February 15th, 1879, with all the symptoms of intestinal obstruction. She had passed nothing *per anum* for nine days prior to admission. She had an inguinal rupture on the left side, and had worn a truss, which was left off just prior to the present attack, and the hernial protrusion did not seem to have come down since. She had been subject to obstinate constipation, and on three occasions the retention of fecal matter had given rise to very serious symptoms. These, however, had always been relieved by ordinary means. On admission, a hard swelling was felt in the left

iliac fossa, in the region of the inguinal canal and sigmoid flexure. She had intense pain over the lower part of the abdomen, and her eructation smelt stercoraceous. She was placed under the influence of an anæsthetic, and Mr. Bellamy introduced his entire hand into the rectum, and found that he could not get any fingers past the upper part of the rectum, which seemed to be filled up by some protrusion into it, and which itself appeared to be constricted. He, however, determined to wait awhile before operating, and to give the patient all chance of treatment prior to doing so. She, however, rapidly became worse, the vomit becoming absolutely stercoraceous. On the evening of the 19th, strict antiseptic precautions being adopted, Mr. Bellamy first made an incision down to the external ring, thinking that perhaps there might be some implication in the canal. On passing his finger into it, he found that this was not the case, but he did find the sigmoid flexure greatly distended. Having enlarged the incision upwards and obliquely outwards, he was enabled to pass the entire hand within the abdominal cavity and feel for the constriction. Thinking it possible that the sigmoid flexure might have been constricted anteriorly by the posterior utero-vesical fold of peritoneum, he felt for it, and found it not only very much developed, but obscuring a knuckle of small intestines which was obviously invaginated in the anterior aspect of the first part of the rectum, and in addition there was what appeared to the touch to be bands of organized lymph, stretching across in the same place, and probably the result of some earlier inflammatory process. (The existence of these bands, and the hypertrophy of the peritoneal fold, would account for the non-reduction of the hernia *per anum*.) Having again introduced his entire right hand into the rectum, Mr. Bellamy pushed the prolapsed mass upwards and towards his left hand, which was in the pelvic cavity, at the same time breaking down the adhesions and gently drawing out the knuckle and small intestine from its invaginated position, and freeing it from the peritoneal fold. Very soon afterwards, flatus was passed, and in a few hours a copious evacuation followed; of course affording immense relief. The patient became very delirious on the fourth day, but the symptoms yielded to morphia and chloral. The wound was treated strictly in accordance with Lister's method, and she had absolutely no bad symptoms till Thursday (26th), when some symptoms of peritonitis occurred. In examining the literature of the subject, the author had been unable to find any case where gastrotomy had been performed for a similar condition, although Lockhart described the form of hernia; but he stated that he had never known operation necessary. It would be concluded, of course, that the cavity of the peritoneum was opened. This was unavoidable from the nature of the adhesions, and the surgeon's examination was made from within its walls.

Mr. Bellamy allowed that the cause of this hernia was inexplicable; the anterior portion of the rectum had given way, the small intestines had got under the meso-rectum, and had then pushed forward under the mucous membrane.—*Am. Journ. Med. Science*.

HOSPITAL FORMULARY.

PHARMACOPŒIA OF THE HOSPITAL OF
THE UNIVERSITY OF PENNSYLVANIA.

PILULÆ.

4. *Pilula Ipecacuanhæ Composita.*

R	Pulv. Ipecac.....	gr. i
	Ext. Colocynth. Comp.....	gr. ij
	Ext. Belladonnæ.....	gr. ½
M	et ft. pil. No. 1.	

5. *Pilula Colocynthis Composita.*

R	Ext. Colocynth. Comp.....	gr. ij
	Ext. Belladonnæ.....	gr. ½
	Ext. Gentianæ.....	gr. j
	Olei Cari.....	gtt. ss
M	et ft. pil. No. 1.	

6. *Pilula Podophylli Composita.*

R	Resinæ Podophylli.....	gr. ½
	Pulv. Rhei.....	gr. ij
	Ext. Belladonnæ.....	gr. ½
	Ol. Cari.....	gtt. ss
M	et ft. pil. No. 1.	

7. *Pilula Cinchoniz Composita.*

R	Cinchoniz Sulph.....	gr. jss
	Acidi Arseniosi.....	gr. ⅓
	Strychniz Sulph.....	gr. ⅓
M	et ft. pil. No. 1.	

8. *Pilula Arsenicalis Composita.*

R	Acidi Arseniosi.....	gr. ⅓
	Cinchoniz Sulph.....	gr. jss
	Ferri et Potasssi Tart.....	gr. ij
M	et ft. pil. No. 1.	

9. *Pilula Cinchoniz Cum Ferro.*

R	Cinchoniz sulph.....	gr. ij
	Pulv. Ferri.....	gr. j
	Strychniz.....	gr. ⅓
M	et ft. pil. No. 1.	

10. *Pilula Morphiæ et Hyoscyami.*

R	Morph. Sulph.....	gr. ½
	Ext. Hyoscyami.....	gr. ij
M	et ft. pil. No. 1.	

11. *Pilula Argenti Nitratis.*

R	Argenti Nitratis.....	gr. ½
	Pulv. Opil.....	gr. ⅓
M	et ft. pil. No. 1.	

15. *Pilula Ferri Composita.*

R	Acid. Arseniosi.....	gr. ⅓
	Strychniz Sulph.....	gr. ⅓
	Ext. Belladonnæ.....	gr. ½
	Cinchoniz Sulph.....	gr. jss
	Pil. Ferri Carb.....	gr. ijss
M	et ft. pil. No. 1.	

16. *Pilula Arsenicalis.*

R	Acidi Arseniosi.....	gr. ⅓
	Confect. Rosæ.....	gr. ij
M	et ft. pil. No. 1.	

17. *Pilula Auri et Sodii Chlorid.*

R	Auri et Sodii Chlorid.....	gr. ½
	Gummi Tragacanthi.....	gr. jss
	Sacchari q. s.....	

M et ft. pil. No. 1.

One twice a day after meals, to be increased to eight pills daily.

PULVERES.

1. *Pulvis Bismuthi Compositus.*

R	Bismuthi Subnitratis.....	gr. x
	Pepsinæ.....	
	Pulv. Aromat.....	aa gr. v
M	et ft. chart. No. 1.	

2. *Pulvis Sodæ Compositus.*

R	Sodii Bicarb.....	
	Pulv. Zingiberis.....	
	Pulv. Calumbæ.....	aa gr. ijss
M	et ft. chart. No. 1.	

3. *Pulvis Bismuthi.*

R	Bismuthi Subnit.....	gr. xv
	Ft. chart. No. 1.	

4. *Pulvis Santonini.*

R	Santonini.....	gr. ½
	Sacchari.....	gr. ij
	Ft. chart. No. 1.	

5. *Pulvis Rhei Compositus.*

R	Pulv. Rhei.....	gr. ij
	Sodii Bicarb.....	gr. x
	Pulv. Zingiberis.....	gr. ij
M	et ft. chart. No. 1.	

6. *Pulvis Buchu Compositus.*

R	Buchu.....	ʒ j
	Sodii Bicarb.....	ʒ ii
	Fol. Belladonnæ.....	gr. viij
M	et ft. chart. No. 1.	

Sig. Put in a pint of boiling water, and when cold strain; take a wineglassful three times a day.

OBITUARY.

CHARLES FREDERICK MAUNDER, F.R.C.S.,

SURGEON TO THE LONDON HOSPITAL.

Another sudden death has occurred in the ranks of the medical profession. Mr. C. F. Maunder, Surgeon to the London Hospital, died suddenly on Friday, at the early age of 47.

Charles Maunder received his early training in the Royal Infirmary, Edinburgh, where he studied surgery under the late Mr. Syme; he subsequently continued his studies at Paris and Guy's Hospital; and entered the profession in 1854.

In 1857, he was admitted a Fellow of the Royal College of Surgeons; and in the same year was appointed Demonstrator of Anatomy at Guy's Hospital; and from this time devoted himself to practical surgery. During the Crimean war, he served as Assistant-Surgeon in the Renkioi Hospital.

In 1860, he was appointed Assistant-Surgeon at the London Hospital, becoming full Surgeon in 1869.

Mr. Maunder is well known as an operator, and

as having contributed to the development of several important procedures in practical surgery. He was a good speaker and lecturer, and delivered the Lettsomian Lectures in 1875 on "the Surgery of the Arteries." As an author, he produced a very excellent work on *Operative Surgery*, besides various contributions on surgical diseases.

For about a year, his health had been obviously failing; and in May last, on the recommendation of his professional friends, he withdrew for awhile from his active duties at the hospital, and went into the country to recruit his health. These means, however, failed to restore health; he never rallied, and died suddenly on July 4th.

Mr. Maunder was valued by his colleagues and by all who knew him as a man of thorough truthfulness and straightforward action; he always displayed great interest in the London Hospital and Medical School; and his name will long be held in remembrance by all who worked with him.—*Brit. Med. Jour.*

NEWS ITEMS AND NOTES.

The Homœopathic Times takes occasion to refer to the case related in our pages a few weeks since, where a homœopathic butcher broke a patient's neck. It speaks of its brother as "a recent graduate," and says that the case should be a "good lesson to some of our young and *daring* (?) surgeons." Further, the "operation" was about to succeed, when, lo! the patient gasped his last." It then attempts to shield the operator by omitting to give that portion of the verdict of the coroner's jury which blamed him for the patient's death.

Martyrs of Medicine.—The prefect of the Seine lately appointed a commission for the purpose of arranging inscriptions to be placed on memorial tablets in various parts of Paris. The first two tablets and inscriptions were of a political character; the third is to be placed in the interior of the hospital for sick children. Its tenor is as follows: "To the memory of Henri Giboulon, born in Paris, provisional house-surgeon, died at the age of twenty years, on the 10th of April, 1875, of diphtheria; Leopold Poisier, born at Baufoy (Sarthe), provisional house-surgeon, died at the age of twenty-five years, on the 30th January, 1876, of diphtheria; Emilie Périer, born at Grenoble, of the order of St. Thomas de Villeneuve, died at the age of forty-eight years, on the 3d May, 1878, of diphtheria; Ernest Frevel, born at Paris, pupil in pharmacy, died at the age of twenty-six years, on the 9th January, 1879, of small-pox; Jacques Abaddie Tourné, born at Pau, house-physician, third year, died at the age of twenty-eight years, on the 24th May, 1879, of diphtheria. Died victims of their devotion in the care of sick children."

Business.—A gentleman recently about to pay his doctor's bill said, "Well, doctor, as my little boy gave the measles to all my neighbors' children, and as they were attended by you, I think you can afford, at the very least, to deduct 10 per cent. from the amount of my bill for the increase of business we gave you."

N. Y. Academy of Medicine.—Dr. Abram Du Bois has added \$3,000 to his original subscription, making \$8,000 in all. He wishes the \$3,000 raised by the Academy, to be appropriated to the library fund. The fire-proof "annex" to the Academy building, will be completed by the 16th of August, and it is expected, it will be sufficient for the library accommodation for several years to come. When some generous friend to the Academy will contribute \$10,000, to pay off the mortgage, the success of the Academy will be assured.

An epidemic of cerebro-spinal meningitis is prevailing at Reichenbach in Silesia, with a mortality of 50 to 60 per cent.

Dr. Mook has presented to the Anatomical Museum at Munich three hundred skulls of Egyptian mummies, collected by him during his residence in Cairo.

The magistrates and town council of Breslau, in memory of the golden wedding of the German Emperor, have voted the sum of 30,000 marks (\$7,500) to the Augusta Hospital for Sick Children in that town.

Chronically enlarged tonsils, painted twice daily with citron juice may be cured within a fortnight.

Hiccups, in adults or children, may be arrested by giving a lump of sugar saturated with table vinegar; or, an œsophageal tube may be frequently passed.

Remedy for Toothache.—After cleansing the decayed tooth, pack well into the cavity a pledget of cotton saturated with compound tincture of benzoin.

Palatable Castor Oil.—Rub two drops of oil of cinnamon with an ounce of glycerine and add an ounce of castor oil. Children will take it as a luxury and ask for more.

Cooks and Doctors.—It is related of a celebrated physician, Phillippe Hecquet, born at Abbeyville in 1681, that when he was called to visit any wealthy patient, he frequently repaired to the kitchen in order to shake hands with the *chefs* and cooks, and exhort them to continue to fulfill their occupations diligently. "I owe you, my friends," he would say to them, "my gratitude for all the good services which you have rendered to us doctors, for without you and your art of poisoning, the Faculty would soon find itself in the workhouse."

Chloral in Whooping Cough.—Dr. C. H. Smith reports that in two hundred cases of this disease, treated with chloral, he has in every case noticed a marked alleviation of the symptoms and shortening of the period of the disease. Only one case lasted seven weeks, and the majority of the cases were well in from two to six weeks. No other remedy was given.—*N. Y. Medical Journal.*

Items.—Seventy-seven deaths from starvation in London in 1878.

A committee has been formed in Florence for the purpose of establishing a hospital for the sick of all nations and all religions.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A CASE OF SYPHILITIC BRIGHT'S DISEASE WITH UNUSUAL COMPLICATIONS.

A Clinical Lecture Delivered at the Hospital of The University of Pennsylvania.

BY

WILLIAM PEPPER, M.D.

Professor of Clinical Medicine in the University Medical School.

(Reported For THE HOSPITAL GAZETTE.)

I. W., white, aged 25. Has been at work ever since he was sixteen years of age (with the exception of three years spent in a butcher's shop) in a morocco factory. During all these years he has worked very hard and been greatly exposed to cold and wet. His habits have been generally good, except while butchering, when he drank a good deal. He has always used a considerable amount of tobacco. He presents no history of syphilis whatever. He had variola and measles when a child, but he never had scarlet fever or erysipelas. He is married and has one child who is in very poor health, suffering from oedema of the feet and face.

The patient's father was subject to epileptic attacks and died, when the son was still young, from paralysis. This paralysis came on quite gradually and was most probably of syphilitic origin. His mother died of dropsy. He has a healthy brother living, but his only sister is afflicted with exophthalmic goitre, palpitation of the heart, and dropsy of the face and feet.

During the past twelve months he has been working steadily in the leather factory, has perspired a great deal and has caught cold repeatedly from exposure. He has had frequent pains in the back, which have been accompanied at times by chilly sensations and slight fever. There has been considerable dyspnoea. During the past four months there has been a good deal of oedema all over the body. The patient remained at work until two weeks ago when the growing asthenia and anasarca compelled him to stop.

At present his face, neck, feet and body are swollen. His face is pale and his general appearance anæmic. He is very drowsy, but his intellect is perfectly good. His tongue is coated, tremulous and flabby, and there is a membranous patch upon his uvula. The tonsils are enlarged and the throat is sore. Phonation and deglutition are both difficult. The glands on the right side of the neck are swollen. Respiration is attended with a loud noise in the larynx. Expiration is considerably prolonged. The man's appetite is good, but he is subject to flatulence and pyrosis. He has a bad taste in his mouth and his breath is bad. His bowels are con-

stipated. His lungs are in good health and there is no abdominal effusion.

The apex beat of the heart can be felt underneath the rib in the fourth interspace. A weak impulse can also be felt in the second and third interspaces at the border of the sternum. The upper border of cardiac dulness is a line drawn from the head of the second rib to the left nipple and its utmost limit outwards is a line drawn directly downwards from the nipple to the fifth rib. A line drawn parallel to the linea mammalis and running from the fifth rib to the xiphoid cartilage represents the lower border of cardiac dulness, while its limit on the right is the median line of the sternum. The sounds of the heart are distant and feeble and the pulse is small and rapid.

The urine passed amounts to sixty-four ounces in the twenty-four hours and is of a dark-red color and alkaline reaction. One-half of its bulk consists of albumen, and its specific gravity is 1006. It contains a considerable number of granular and hyaline casts.

A careful survey of the case gives us every reason to suspect a syphilitic origin of the trouble, particularly when we find such marked albuminoid degeneration of the kidneys, without any evidence of the pre-existence of the causes of Bright's disease. I think we might with propriety name the patient's case one of syphilitic Bright's disease.

The resident hands me a brief history of the present condition of the case, which I think it will be well for me to read to you, even at the risk of some needless repetitions.

According to this paper the patient's sore throat has been most severe during the past nine or ten days. Most of this time, too, his face has been very puffy. This puffiness has been slightly reduced by some vigorous sweating brought on by jaborandi. He has several herpetic sores on his lips. His tongue is clean, but flabby and large. There is an enormous amount of false membrane on the uvula and tonsils—true pseudo-membrane presenting the exact appearances of a bad case of diphtheria. The tonsils are swollen and red. No ulceration is visible. The respirations are rather short and hurried and the pulse is weak and easily excited—running up to one hundred beats a minute upon the least exertion. There is no fever and the urine is increased in quantity. The digestion has been quite good during the past two or three days. There is some enlargement of the cervical glands. The axillary and inguinal glands are not enlarged. There is no enlargement of the spleen nor of the liver. During the past four or five months there has been considerable running at the nose at night. During this time the nose has been continuously swollen. (You all notice how broad and clumsy looking this part of the face is.) He speaks with a nasal twang and there is a constant and very offensive ozænatous discharge from the nose.

Gentlemen, I think we have here a case of a very curious character. The patient is a young fellow who has been a great deal exposed to dampness, wet and cold, has had occasional pains over the kidneys, with constantly increasing puffiness of the skin—a sort of permanent dropsy. The amount of urine has increased, and its color has changed. This urine is loaded with albumen, is smoky, and con-

tains a considerable quantity of the coloring matter of the blood, with hyaline and granular tube casts.

The case raises two questions of great importance; first, as regards the particular form of Bright's disease present, and second, as to the real underlying condition of system. The case is one of more than ordinary interest.

What is the meaning of the ozæna and of the marked change in the conformation of the bones of the nose? And what significance shall we attach to the pseudo-membranous angina. These three symptoms are very significant. They suggest (in addition to the evident Bright's disease) the existence of some deeply-seated constitutional disease. We rarely find them co-existent with the general anasarca consequent upon uncomplicated Bright's disease. Furthermore, all the members of the patient's family, except one, show clear evidences of some constitutional taint. His father died of paralysis, and his mother of dropsy. His sister has dropsy, and his only child is affected in the same way. These facts make me regard the case as one of more than ordinary interest, in which the morbid influence was so grave, as to affect a whole family. The existence of long standing ozæna and bone disease, attended with chronic glandular enlargement and superadded throat disease, necessitate the existence of grave constitutional disease to explain their rationale.

I have spoken to you upon numerous occasions of the immense prevalence of constitutional and acquired syphilis, and have referred to the frequency with which the initial lesion is not noticed by the patient. This is even more frequently the case in inherited than in constitutional syphilis. By no means in every case of acquired syphilis does the disease reveal itself after birth by syphiloderma, or keratitis, or inflammation of the cornea—by notches in the second set of teeth, by skin eruptions, and by tendencies to chronic inflammations and bone disease—by no means is such evidence as this always present.

Many have the cases been which have fallen under my notice, in which the poison seemed to have been so diluted and the system of the patient so robust, as not to yield to the disease until late in life, or at least until well into middle age. I was recently consulted by a gentleman for an ulcerative perforation of the hard palate, and of the septum of the nose, with ozæna. I knew perfectly well that the patient had never had acquired syphilis, and that he had never even been exposed to venereal taint. And although he had never shown a single symptom of the disease, yet, at the age of 30, he for the first time displayed the lesions of what must undoubtedly have been deep seated constitutional disease.

More recently a still more novel case has occurred to me: that of a family where the father was absolutely free from the slightest evidence of venereal disease, and where his parents were both vigorous and healthy; where the wife was apparently healthy until she had reached the age of 40, when serpigenous ulcers began to manifest themselves with necrosis of the forehead and tibia, and of other bones. The circumstances of this lady's life dissipated from my mind at once the idea of any indulgence in improper intercourse on her part. The

children of this couple were all healthy and robust, although several of them exhibited at puberty curiously characteristic and specific symptoms which yielded to specific treatment and to no other kind of treatment.

I am satisfied that we meet with a good many such cases where the inherited venereal taint has been diluted and not finding soil suitable for its development has displayed no symptom of its existence in childhood, and never in fact been known to be in the system until well on in life.

How far our investigations in this field are going to lead us, and what light they are going to throw on the numerous cases which we meet, of obscure and causeless diseases I cannot tell. Certain it is that such investigations are pregnant and full of importance. Those physicians with large practices, and particularly those with large family practices should improve the numerous opportunities presented to them of studying these matters. What we most need is a knowledge of the parentage of disease and its different manifestations in different generations. We shall have much new and valuable knowledge when the nature and characteristics of syphilis have been thoroughly worked up.

(There was no proof that this patient of mine had inherited syphilis, except her general cachexia and depraved condition of blood.)

In our present case we have reason to suspect that the kidneys are the seat of albuminoid degeneration, with catarrhal nephritis. In simple catarrhal nephritis the onset of the disease is usually acute. It may have been so here, but I think it unlikely. Moreover in most cases the urine is rather diminished in amount and has a high specific gravity. This condition is very strongly opposed to that of contracted granular kidney in which the tube casts and albumen are in very slight amount and the quantity of light-colored urine is large. In albuminoid degeneration the onset of the disease is slow and there is considerable dropsy and copious urine, with low specific gravity, and abundance of albumen and granular and hyaline casts. Here the inflammation of the kidneys is acute.

I would connect the angina with the constitutional condition. The chronic ozæna and disease of the nasal passages may be a manifestation of the catarrhal nephritis. We have also here a sort of secondary diphtheria, and, by-the-by, the word diphtheria is a most unfortunate one to express the great constitutional disease which goes by that name, since it simply describes a pseudo-membranous formation on mucous surfaces. What is known as diphtheria is a distinct constitutional disease, the chief local manifestation of which is a pseudo-membranous formation on the larynx and pharynx.

In many conditions of the system there is a tendency to this same pseudo-membranous formation. Particularly is this the case in scarlet fever, small pox, and erysipelas. It also occurs in certain cachetic states of the system. This secondary diphtheria is not true idiopathic diphtheria. Indeed it is really not diphtheria at all. Here is just a case in point. You could not have a better example than this to show that this secondary diphtheria is not true diphtheria, but the blood here is in an unhealthy state, and the mucous membranes are predisposed to disease.

The indications for treatment here are first to get rid of the dropsy by means of jaborandi, and second to see that the diet is nourishing and easy to digest, and favorable to free secretion. Among the best of foods in this particular, may be mentioned butter-milk, oat meal gruel and light broths.

When the dropsy has gone, mercury should be given in the shape of minimum doses of the bichloride with iodide of potassium. At the same time it would be well to administer cod liver oil with the iodide of iron, on account of the depraved condition of the system. I cannot banish the opinion from my mind in this case, that there is an inherited taint in the system which predisposes to disease. I think that the results of treatment here will be good.

HOSPITAL RECORDS.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

SERVICE OF J. M. DA COSTA, M.D.

GASTRIC VERTIGO — INJECTION OF AMMONIO-CITRATE OF IRON.

(Prepared for THE HOSPITAL GAZETTE.)

P. S., æt. 46, widow, house-keeper, admitted March 18, '78. Patient's family history good, and she herself has generally had fair health. On one occasion, however, she lost her hair, and had an eruption. This last, she says, is common in her family. It itched, and she thinks is called salt-rheum, but beyond this there is no suspicion of venereal disease. For the past two or three years the patient has had attacks of inflammatory rheumatism, during which she had great pain in the heart, palpitation, etc. Patient has never had any children. Has had what she calls falling of the womb. Menses ceased about two years since.

The present attack came on about two months or six weeks ago. She was giddy, and had a bad taste in her mouth. She also vomited green matter, and from time to time afterwards she threw up a white mucus. During that time and since she has had pain in the stomach and back, also in the head, more especially back of the eyes. Has not vomited for the past week.

Upon admission the patient seemed weak and suffering, but had a fair color and pulse, and seemed well nourished. Complained much of vertigo and pain in the head, especially behind the eyes; want of appetite and pain in the back, heart and stomach. This last was especially felt after eating. There seemed to be slight tenderness on pressure over the stomach. The liver was not enlarged. The lungs were healthy. The heart gave a very slight systolic basic murmur. The headache was usually better when the patient was standing up. Evening temperature 98°, pulse 80, respiration 20.

Urine slightly cloudy, light-colored. Faintly acid, sp. gr. 1010. No albumen and no sugar. A careful examination of the eyes shows only very slight congestion of the disks. R fld. ext. gelsem. gtt. ij t. d. Good food, milk, etc.

March 20.—Patient seems rather better, but still complains of headache and indigestion.

March 21.—Has a slight conjunctivitis, for which ordered: R sodii bibor., 3 jss; aq. camph. 3 iij; aq. rosae., 3 iij.

March 22.—Complains much of pain in hypogastric region, also over stomach. Mustard plaster applied. R ferri dialy., gtt. xx., t. d.

March 23.—Patient has vomited repeatedly, and complains of pain in side, for which a dose of morphia was given. Has aches in various other parts of the body. There is no swelling of the thyroid gland.

March 26.—Stopped gelseminum. R Sulph. strych., gr. $\frac{1}{30}$, t. d. Patient seems better, but still complains of wandering pains, nausea, vertigo, etc. Appetite not bad.

March 29.—Patient is decidedly better. Gets up every day, but still seems pretty weak when walking.

April 1.—Injected. m xv of a solution of ammonia, citrate of iron into arm, (gtt 2½ to aq. m xv) vomited afterwards.

April 2.—But the very slightest irritation from the iron. Repeated injection of m xx of sol.

April 3.—Repeated injection. No irritation from previous ones.

April 4.—Same injection after which patient was violently sick at stomach.

April 6.—No injection of iron yesterday on account of its provoking vomiting. The vomiting is entirely due to peculiar condition of patient. Injections produced no irritation.

April 10.—Patient is slowly improving, still some dizziness and weakness. Complains of eyes. Has not vomited since last injection. Heart murmur about the same.

April 13.—Patient seems stronger. Treatment continued.

April 16.—Patient is decidedly hysterical. Says she feels much better when head is low. Complains now entirely of pain and soreness in orbits. Stomach symptoms seem to be much improved.

April 20.—Admits that she is a great deal better. Has a better color and is stronger.

May 27.—Weight to-day 110 lbs. Seems to be getting stronger and has more color in cheeks, but still complains of dizziness and soreness back of her eyes. As an experiment tried a blister on one temple.

June 2.—Blister has had no good effect. Have gone back to strychnia sulph. gr. $\frac{1}{30}$ t. d. with a grain of quinine.

June 7.—Patient has been steadily improving though still complains of pain in eyes and occasionally vertigo.

Seems to do better on strych. sulph. than anything else. Wants to leave, and was accordingly discharged improved.

TRANSLATIONS.

PULMONARY TUBERCULOSIS.

BY

DR. C. F. KUNZF, OF HALLE.
Translated for THE HOSPITAL GAZETTE

BY

PAUL H. KRETZSCHMAR, M.D., BROOKLYN.

A. ACUTE MILIARY TUBERCULOSIS OF THE LUNGS.

This affection always runs its course under the

aspect of an acute infectious disease, and is characterized by the fact that, besides abundant acute development of tubercles in all parts of the lungs, they are at the same time symmetrically diffused in the form of tubercular nodules in all the organs whose tissues are at all disposed to their development.

It is remarkable that these tubercular knots, while appearing at such different parts of the body, almost all present the same stage of development. Besides a large number of young tubercles in the lungs, they are found also in great numbers in the pia mater of the brain, in the pleura, peritoneum, liver, spleen, kidneys, etc.

Acute miliary tuberculosis of the lungs either follows a formerly existing chronic pulmonary tuberculosis, *secondary acute miliary tuberculosis*, or it develops itself as an acute affection from the beginning, without the pre-existence of any chronic form, *primary acute miliary tuberculosis*. The former—see aetiology above—is probably developed by metastatic infection, in like manner as secondary cancers are found after the breaking-down of the primary neoplastic growth.

The symptoms of *secondary acute miliary tuberculosis* always follow those of a pre-existing pulmonary tuberculosis, which may or may not have been combined with a phthisical condition; they consist in more or less severe fever, considerable dyspnoea, great frequency of respirations, increased tendency to cough, with expectoration of white slimy masses, or streaked with blood, and pleuritic pains. The auscultatory signs—and in many cases also the percussion sounds—are not altered, because the isolated young tubercles have always layers of aerated lung tissue between them. To recognize the additional symptoms as belonging to acute miliary tuberculosis is often quite difficult; because they, by themselves, do not present anything very characteristic. Neither can the disproportion between the intense dyspnoea and the moderate extension of a previously existing and detectable old consolidation (Niemeier) assist materially in rendering a diagnosis, because the addition of a capillary bronchitis or the development of an acute central catarrhal pneumonia are accompanied by the same symptoms. Of much greater diagnostic value is the co-existence of *meningeal* symptoms.

If a contracted condition of the neck, strabismus, very severe headache, vomiting, very slow pulse, and later on sopor be added to a suddenly developing fever and dyspnoea, occurring during the course of a chronic pulmonary tuberculosis, these symptoms may be regarded as sufficient evidence that acute miliary tuberculosis has developed itself in the lungs and in the brain.

The symptoms of *primary acute miliary tuberculosis* are almost identical with those of a typhoid fever, and they are often mistaken for them. Because of the entire absence of any previous indication of lung disease, and because the occurrence of isolated tubercles is entirely beyond our means of recognition, it seems natural that the physician's attention should not be directed to the real seat of the disease. At best, the signs of bronchitis are recognizable. The disease commences more or less suddenly with a chill, which generally repeats itself,

being followed by a *very rapid and a very irregular pulse*, great faintness, general debility, and a well marked continuous emaciation. At the same time the sensorium becomes affected, the patient becomes delirious, the tongue takes on all the characteristics of a typhoid tongue, but there is a *disposition to copious perspiration* from the beginning of the disease. In this condition the patient offers an almost perfect picture of a patient suffering from typhoid fever, and it is necessary to consider all the symptoms very carefully in order to differentiate it from typhoid fever. (Abdominal typhus).

The important points of difference may be classified as follows:

I.—The temperature of the body. According to the careful observations made by Wunderlich the temperature in acute miliary tuberculosis is considerably lower than in typhoid fever; it rarely ever rises as high as 40° C. (104° F.) and it does not correspond to the extreme rapidity of the pulse.

II.—Very frequently in acute miliary tuberculosis a continuous and constant tickling sensation in the larynx is observed, and in the majority of cases the voice becomes hoarse at an early period.

III.—In acute miliary tuberculosis the number of respirations is considerably increased, they stand in no relation to the moderately elevated temperature of the body, the respirations are superficial. Occasionally slight cough is present. In typhoid fever the increased frequency of respirations is wanting.

IV.—The development of acute miliary tuberculosis takes place much more rapidly, and especially the fever shows no such gradual increase, as is always observed in cases of typhoid fever. (Abdominal typhus or enteric fever).

V.—Roseola and the peculiar diarrhoeal discharges occurring even in the first stages of typhoid fever, are not present in acute miliary tuberculosis. During the further course of acute miliary tuberculosis, however, diarrhoeal discharges are frequently observed, depending on the development of intestinal tubercles.

VI.—The detection of choroidal tubercles decides positively in favor of acute miliary tuberculosis. Cohnheim found in seven cases of acute miliary tuberculosis—which include all the cases he has examined—in persons from 21 to 59 years of age, tubercles in the choroidea. It may be stated that the sense of vision is not interfered with by the presence of choroidal tubercles.

VII.—The aetiology of acute miliary tuberculosis is quite different from that of typhoid fever. If members of the same family have died previously of tuberculosis; if the patient presents a "phthisical habitus;" if the disease occurs between the ages of 17 and 24 years, tuberculosis should be suspected rather than typhoid fever.

The Prognosis in both varieties of acute miliary tuberculosis is *very bad*; the disease may terminate fatally, either at the end of the first week or within a couple of weeks. Death takes place by "collapse" from consumption of all the vital powers by the high fever. Not unfrequently, œdema of the glottis, is the immediate cause of death. The reported cases of recovery are in all probability based on a mistaken diagnosis.

The treatment, according to what has been said,

offers no prospects of a favorable result. To diminish the fever the entire body should be sponged with cold water and vinegar, and, from the list of remedial agents, digitalis, quinine, and the mineral acids should be selected. To relieve coughing, morphine should be employed, and to lessen the delirium, cold compresses should be applied over the head, etc.

B. CHRONIC MILIARY TUBERCULOSIS OF THE LUNGS.

The deposition of tubercles in the lungs takes place, in contra-distinction to the acute variety, very slowly. In the beginning of its course no febrile symptoms accompany the disease, later on a "slow" and towards the end an intense, more or less continuous fever, consuming rapidly the vital powers of the system, becomes developed. The first tubercles are, in the large majority of cases, deposited in one of the apices of the lungs, the formerly isolated tubercles gradually form tubercle-conglomerates; isolated tubercular nodules, as well as entire conglomerates, undergo cheesy degeneration, cavities are formed in the lungs and from all these anatomical changes great derangements in the respiratory functions and in the general nutrition follow. Chronic pulmonary tuberculosis associates itself during its course, with bronchitis, with catarrhal pneumonia and pleuritic affections, but either of them should always be considered as secondary to the tuberculosis. Only in cases where tuberculosis follows chronic-catarrhal or pneumonic conditions in the lungs, is it to be considered as the secondary affection. I shall consider now only primary chronic tuberculosis of the lungs. The other variety cannot be differentiated during life-time from cheesy pneumonia; I admit that I am unable to distinguish the symptoms of one from those of the other.

Chronic pulmonary tuberculosis is a disease of frequent occurrence, but we have now, if we exclude those cheesy processes which were formerly regarded as tubercular affections, no satisfactory statistics in relation to its positive frequency.

Symptoms and natural history.—The *prodromal symptoms* generally consist in a deranged condition of the general nutrition. The patients become remarkably *pale*; this condition is always suspicious; among females it is often mistaken for a sign of anæmia, young men with such paleness often present a "womanly" beauty. On closely questioning these patients, it will be found that they have complained for some time without any known cause, of a peculiar weakness of the extremities, especially of the lower extremities. They are always tired and they cannot walk distances which they formerly walked without the slightest difficulty. Already, in some patients, can a decrease in the amount of adipose tissue deposited throughout the body, be observed.

It is a well known fact that persons who, in after-life, are subjects of tubercular disease, suffer in their younger days from frequent hemorrhages from the nose. In the family of a friend of mine, a clergyman, a few years ago, a son 24 years of age, died of tuberculosis; another son of 25 years presents today unmistakable symptoms of the disease. Both of them suffered from repeated hemorrhages from the nose between their 9th and 10th years. A third

son, now 18 years old, well developed bodily, with a well formed chest, considerable adipose tissue, but with a delicate, white, like a woman's, skin, has also suffered until two years ago from repeated attacks of severe epistaxis, and I have no doubt that this third son will also be a subject for tuberculosis. Another prodromal symptom, which is encountered not unfrequently, is the *swelling of the lymphatic glands*, especially those in the groin (buboes) which frequently, but slowly undergo incomplete suppuration.

In a number of cases where no other symptoms are present, increased irritability, and hypochondriac and hysterical mental conditions are the only forerunners of tubercular disease. Finally, it occurs that none of these prodromal symptoms can be observed; the disease begins *suddenly*, with a *copious hæmoptysis*, tickling sensation in the larynx, cough, pain in the chest and other signs, including fever, which belong to the developed stages of tuberculosis. The duration of the prodromal stage, with its uncertain symptoms, is very variable, in most cases it extends over a number of years. The development of those symptoms which are more characteristic of tuberculosis is often due to some accidental cause, an exposure to cold, an over exertion of muscular strength, a severe mental emotion, etc.

In the majority of cases chronic pulmonary tuberculosis commences with a *short, dry, obstinate cough*, during which no, or but a *very scanty, tough, slimy sputum* is expectorated. Not unfrequently the sputum is mixed with small quantities of blood. Occasionally the cough, for some time, is of an entirely spasmodic character and patients often suspect an attack of whooping cough. The patients themselves become suspicious about the obstinacy of the cough, which sometimes exists for years without any other pulmonary symptoms. While at the beginning of the difficulty the cough usually disappears during the warm season of the year, later on it becomes permanent, and it torments the patient, especially during the night. Very often the cough is accompanied by a tickling sensation in the larynx, and the patients generally point to the larynx as the place from whence the dry cough originates. Cough is absent only in very few, exceptional cases, and it is more severe—according to the observations of Lewis—in proportion as the form of the disease leans towards the acute variety. It has its cause, partially in the irritation produced by tough phlegm on the sensitive nerve fibres of the mucous membrane of the bronchial tubes, partially in the reflex irritating action of tubercles, which develop themselves in the pleura. According to Niemeyer's observations, a cough is especially suggestive of a tubercular origin, if it is preceded by no other symptoms than a remarkable weakness, emaciation and etiolation, extending over variable length of time and if physical exploration had been negative in the beginning of the difficulty. During the further course of tuberculosis the cough often has an empty, hollow sound, but its severity diminishes as soon as more copious sputa can be expectorated. A sign of great diagnostic value in the first stages of tuberculosis is *obstinate hoarseness*. It depends in the majority of cases on the catarrhal condition of the alveoli and the bronchial tubes,

which, after some standing, affects also the mucous membrane covering the vocal cords. Sometimes the hoarseness is due to a tuberculosis which is developed in the mucous membrane of the vocal cords themselves. The dry and short cough, which has been mentioned before, is due to the laryngeal complication. Very often a *chronic pharyngeal catarrh* is also present.

Sometimes patients complain early in the course of the disease about a *sensation of tightness* and of *real pain in the chest*, which causes them to take a deep inspiration from time to time, to bring about some ease. These sensations seem to be due to an expansion of the pleura from the increased size of the lungs, which occurs as the consequence of the deposit of tubercles; or it may be due to the development of tubercles in the pleura itself. In many cases these sensations are absent, or if present, they are not of great severity. On the other hand, it can always be observed that if these patients demand some extra work from their lungs, in climbing mountains, running up and down stairs, walking fast, *shortness of breath, dyspnœa*, is felt. The latter may be as well marked as it is in heart lesions with obstruction of the pulmonary circulation (Philipp). The dyspnœa is due to the diminished size of the surface which is exposed for aeration, depending on the presence of tubercles in the lungs, and consequently increasing with the increase of tubercles.

While the symptoms and signs mentioned, emaciation, dry and occasional bloody cough, hæmoptysis, hoarseness and pharyngeal catarrh, and dyspnœa, are of great importance, yet they only can lead us to suspect pulmonary tuberculosis, but would not justify a positive diagnosis. The physical signs of which we shall speak hereafter often enable the careful observer to arrive at the proper diagnosis. As soon as a considerable number of tubercles have been deposited in the apex of a lung, consolidation, shrinkage and adhesions of that part of the lung corresponding to the tubercular deposit take place. The consequences of these changes are, *sinking in of the supraclavicular space, a lowering of the upper boundary of the lung, either none or but moderate elevation of the apex during forcible coughing, dulness on percussion in the supraclavicular space, first empty tympanitic, later dull sounds over the infraclavicular space*. These physical signs are so much the more valuable because pulmonary tuberculosis almost always attacks *one* apex first. These signs are absent or but partly present if the disease has its seat more posteriorly, and if the anterior portions of the lung still contain more or less air; under such circumstances dulness will first be found well marked in the fossa supraspinatus. Errors as to the signs just mentioned may occur, if the tubercular deposits are bilateral, or if the examiner is not particular how the patient keeps his head; if the head is turned to one side an abnormal dulness may be produced by extension of the muscles of the neck. While these signs may be due to other non-tubercular conditions, such as simple cirrhosis or slaty infiltration of the lung, it is, if considered in connection with the other symptoms as mentioned before, not difficult to interpret them correctly.

The *auscultatory signs* may be very variable. In consequence of the catarrhal condition which is

almost constantly present in the apices of the lungs, fine râles are always heard. The seat of these râles, the apex, where a common catarrh rarely ever is located, is of great diagnostic value. The consolidation of a large number of alveoli always produces a *diminished respiratory murmur*, while, in consequence of the catarrhal swelling of the bronchial mucous membrane, the *expiratory sound is very often intensified and prolonged*. Occasionally the acts of respiration take place in intervals—cogged wheel respiration—but no great diagnostic value should be attached to it. If *friction sounds* are heard over the *apices of the lung* they indicate almost unexceptionally tubercular pleuritis. During the further course of the disease disturbances of nutrition, febrile symptoms, changes in the character of the sputa and newly developed physical signs, become prominent.

The disturbances of the patients' nutrition are well marked. The subcutaneous adipose tissue is entirely lost, the skin becomes dry, friable, reedy, the cheek bones become more prominent and the skin covering them has a circumscribed reddish appearance, which suddenly increases on the slightest mental emotion. While the loss of the subcutaneous adipose tissue becomes more and more apparent, the *size of the liver increases* proportionally, by fatty infiltration, and its lower border not unfrequently reaches as far as the umbilicus. Its surface continues to be smooth, the consistency is natural and the borders are blunt. Not rarely the size of the heart also increases by fatty infiltration, as may be detected by the enlarged area of dulness and by the changed location of the apex beat, being found outside of the left nipple.

The *febrile symptoms* which were formerly only present at intervals and for a short period, take on, by-and-by, all the characteristics of *hectic fever*. Towards night exacerbation takes place which continues until nearly morning, and which is followed by copious perspiration, wetting the patients' under clothes and bedding. In some cases the evening exacerbations are preceded by a well defined chill, a condition which may give to the disease much of the appearance of an intermittent fever. During the further course of the disease the fever becomes a *continuous fever*, with but slight remissions in the morning. The fever, however, may show many deviations from the course just mentioned; it may be but moderate with considerable extension of the local process, and it may be quite severe with apparently slight local changes.

While, as has been stated before, in the early stages of tuberculosis the sputa are scanty and tough, and while it is a suggestive symptom, often indicating the beginning disease, if, with obstinate cough and fever, the sputa continue for a long time to present the characteristics of *acute* bronchitis (Canustadt), in the further course of tuberculosis, they become *freer, looser, muco-purulent, homogeneous*, resembling much the expectoration of chronic bronchitis.

The sputa in tuberculosis were formerly considered of great importance. Pathologists thought that they contained the specific tubercular corpuscles, small, round, friable, cheesy molecules, which, if the sputa were kept in a vessel, would fall

to the bottom as a gray layer. (*Sputa fundum pelentia*.) In the present state of medical signs, we know that these corpuscles are nothing else but inspissated catarrhal secretions of the bronchial tubes, and possess no special diagnostic value. The quantity of the expectoration may be moderate or even scanty to the end of the disease; in the majority of cases, however, it becomes copious during the further course from the extensive bronchial catarrh which almost always is developed, and from the abundant discharge from the walls of the cavities. The quantity of expectorated material is sometimes very great, and it may amount to a couple of pounds during twenty-four hours. The sputa have a very penetrating smell, and if the walls of the tubercular cavities are in a gangrenous condition, the air in the patient's room has the most terrible odor. If, towards the end of the disease, diarrhœa develops, the quantity of the sputa decreases. The sudden disappearance of a previously copious expectoration is regarded as an unfavorable symptom, for it often foreshadows the approaching death.

It is remarkable that later during the course of the disease, *bloody mixtures* of sputa or copious hemorrhages do not occur as often as during the developing stages. This remarkable condition depends on the fact that the bloodvessels become obliterated, when the tubercular deposits break down. According to the statement made by Louis about two-thirds of all consumptives suffer more or less from hemoptysis, but it should not be forgotten that Louis considered the tubercular and cheesy processes as identical. The more copious hemorrhages belong mostly to the cheesy degenerations depending on chronic catarrhal pneumonic conditions, while in tuberculosis smaller quantities of blood are frequently mixed with the expectoration. During the further course of tuberculosis however, where pneumonic infiltrations and tubercular deposits are often combined, copious hemorrhage may just as well indicate tuberculosis as pneumonic infiltrations. If the hemorrhages are very copious and if they recur frequently, death sometimes takes place during the hemorrhage.

The *physical changes later* during the course of chronic pulmonary tuberculosis consist, in the *extension of dulness on percussion* which often extends anteriorly as low as the fourth or fifth rib, and posteriorly to the middle of the scapula; in *shrinkage of the thorax over the diseased portion*; in the *more or less complete absence of respiratory movements over the affected side*; in *great resistance of the thoracic walls*; in *considerably increased vocal fremitus*; and if the larger bronchi of the consolidated portions are not obstructed, in *bronchial breathing, beside numerous râles*. The percussion sound is in some cases tympanitic, from the presence of small cavities, from vicarious emphysema or from extensive catarrhal affections, (Gerhardt) conditions which cause an increased extension of the thoracic walls. From the obstruction of the flow of blood from the right heart, the second pulmonary sound is considerably intensified, and, because the sounds of the heart are well propagated through the consolidated lung-tissue, the heart's impulse can be felt over almost all parts of the consolidated lung without the existence of any cardiac hypertrophy.

If *cavities* are formed, it depends on their size and location, whether or not they can be detected by means of physical exploration. As long as the cavities are small, and even in the case of larger ones, if they are situated in the midst of tissue containing air, no definite signs are present. Skoda says, that without danger of mistake, cavities might be expected in all cases where tuberculosis has existed for some length of time, because experience has taught us that tubercular conglomerates cannot exist for a long time without excavations,

Cavities can be positively recognized by physical signs if they have acquired at least the size of a walnut, if they are situated close to the surface, if they are enclosed by consolidated lung tissue and if they contain air. The *percussion sound* over the cavity is in such cases *tympanitic*, of higher or lower pitch according to the size of the cavity. Wintrich was the first to point out, that the *pitch of the sound changes, if the patient opens or closes his mouth*. The sound over the parts in the neighborhood of the cavity is always dull. If the cavity is of large size and if its walls are smooth and symmetrical, the *percussion sound acquires a metallic character*.

Auscultation reveals a variety of râles, often combined with metallic tinkling, and if the bronchial tubes are unobstructed, bronchial breathing can always be heard. The râles heard are because excavations with thick, rigid walls do not increase or decrease, they do not fill up with air during inspiration or expel air during expiration.

In cavities with flaccid walls, which become dilated during inspiration and contracted during expiration, *sounds are produced* by the passage of air into and from the cavity.

Moist and dry râles may be produced in these cavities even if the entrance of air into them is momentarily prevented by phlegm, etc. The change of location of the phlegm within the excavation during inspiration and more markedly caused by the act of coughing is accompanied by moist and dry râles, (subcrepitant, submucous, sibilant and sonorous râles) if the cavity contains air and fluid. (Skoda, percussion and auscultation, p. 290.)

During the final stages of chronic pulmonary tuberculosis we see the patient emaciated to the highest degree, the lower extremities swollen, the abdomen distended with water, the respiration superficial, hurried and often interrupted by coughing, the voice frequently entirely lost from the development of tubercles in the larynx or from the destruction of the laryngeal cartilages. (Perichondritis larynges). Very commonly intestinal tuberculosis develops itself and diarrhœal discharges help to consume the remaining strength of the patient. At this period of the disease continuous fever, with marked elevation of temperature, is always present. Death takes place by collapse or œdema of the glottis.

Diagnosis.—Considering the diagnostic value of the separate symptoms, none of them, by itself, can be recognized as pathognomonic. To arrive at the correct diagnosis, it is very essential to consider carefully the family history, to examine the conformation of the body and that of the thorax, to see if anything in the appearance of the patient is suggestive of a "phthisical habit." The symptoms

and signs presenting themselves, should afterwards be analyzed, and we should try to ascertain—best by the method of exclusion—if they are indicative of tuberculosis; finally, the course of the disease should be considered, which by itself often assists in arriving at, or even makes clear the diagnosis.

Especially difficult is the differentiation of chronic pulmonary tuberculosis from chronic catarrhal pneumonia, after the products of the latter have undergone cheesy degeneration, a difficulty which, however, is of no account in regard to treatment. To assist in differentiating these two conditions it need only be said, that if the disease commences with prominently catarrhal symptoms, it would rather indicate the catarrhal affection (cheesy pneumonia), that free expectoration of catarrhal sputa rarely occurs in the first stages of tuberculosis, that catarrhal pneumonia, if cheesy degeneration has not at all, or not to any extent taken place, shows much more inclination to recovery than pulmonary tuberculosis, and that, finally, the hereditary influence is much more marked in cases of chronic pulmonary tuberculosis than in chronic catarrhal pneumonia. Sometimes careful observation of the symptoms—separately and united—and of the course of the disease, make the correct diagnosis comparatively easy at an early period.

Prognosis.—Well developed pulmonary tuberculosis hardly ever terminates in recovery, though isolated tubercles sometimes undergo calcareous degeneration or become absorbed, a process which, however, cannot be closely observed during the life of the patient. As the most prominent signs of the coming solution may be mentioned: high continuous fever, frequently recurring copious hemorrhages, signs of perichondritis laryngea and diarrhoeal discharges.

The Treatment is the same as in chronic catarrhal pneumonia.

SELECTIONS FROM JOURNALS.

TRIGEMINAL NEURALGIA OF LONG STANDING CURED BY THE ADMINISTRATION OF LARGE DOSES OF ACONITIA.

BY
ROBT. F. WEIR, M.D.
Surgeon to the New York and Roosevelt Hospitals.

Peter Derken, aged 38, a German, was first seen April 15, 1879, in consultation with Dr. W. T. Alexander. The patient had had severe neuralgia for eighteen years, affecting principally the distribution of the infra-orbital nerve of the left side of the face, with the paroxysm recurring nearly every minute. Sleep has been obtained by use of chloral and opium.

Eighteen months since the nerve was divided at its point of emergence on the cheek, and half an inch of it removed by Dr. A. B. Mott, of this city. As a result of this operation the pain was absent for three or four months, when it recurred, and it is now more marked in the parotid and temporal regions and along the teeth of the upper jaw. The neuralgia has lately affected the teeth of the lower jaw also on the same side.

Aconitia was advised as worthy of a trial prior to

resorting to the removal of the remaining deeper portion of the nerve, and Duquesnel's preparation gr. $\frac{1}{16}$ (obtained at Neergaard's), was exhibited three times a day, which, on the 17th inst., was increased to gr. $\frac{1}{8}$ *ter die*. After the second dose of this strength the patient felt slight coldness over the body, with moderate tingling sensations. No effect on the neuralgia was, however, noticed, and on the 19th four doses of gr. $\frac{1}{8}$ each were given without any physiological effect, though the pain was made easier, so much so that the patient slept the next night without any anodyne.

April 25th.—Has now increased the doses of aconitia to seven per diem, each being gr. $\frac{1}{8}$.

No physiological effects have been produced by the remedy, except occasionally a slight chilliness.

The amelioration of the pain is most marked. He feels it only moderately in the lower molars in the afternoon, though he had never before noticed any intensification of pain at such times of the day.

Since this last date the patient passed from under observation, but the following note from Dr. Alexander completes the case:

NEW YORK, June 4, '79.

Doctor Weir:

DEAR SIR:—Mr. Derkin told me this morning that he has had no return of his neuralgia since he last saw you, with the exception of one or two slight transitory twinges during the last two days, which he attributes to the bad weather. He has taken none of the medicine since he was at your office, and feels perfectly well in every respect.

I made pressure on various parts of his face, but caused no pain by so doing. Yours truly,

W. T. ALEXANDER.

—*Archives of Medicine.*

ON THE USE OF ETHER WITH COD-LIVER OIL.

The committee of the N. Y. Therapeutical Society, from an investigation of the evidence before them felt warranted in drawing the following conclusions:—

1. That the addition of ether to cod-liver oil in about the proportion of fifteen minims to each half ounce (or an equivalent amount of the compound spirit of ether) will succeed in the vast majority of cases in enabling the patient to take the oil, even though it previously disagreed.

2. That in some cases in which the oil still disagrees after the addition of the ether, the difficulty may be overcome by giving the ether separately from fifteen minutes to half an hour after the oil is taken.

No facts have been laid before the committee having a bearing upon the question as to whether the etherized oil is superior to the plain oil in its ultimate effect upon nutrition, supposing them to be equally well tolerated by the stomach.—*Am.*

Jour. Med. Sci.

THE HOSPITAL GAZETTE,

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and the Collateral Sciences.

EDWARD J. BERMINGHAM, A.M., M.D. }
FREDERICK A. LYONS, A.M., M.D. } *Editors.*

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EDITORIAL.

THE GREATLY ABUSED.

The American Medical College Association is being most handsomely abused. If the Association was expending exorbitant sums for the services of professional detractors to do the work, it certainly could not be more effectively done. The graces of rhetoric lend all their charms to the performance, so that no one shall fail to be persuaded that the Association is the great white dragon coming to destroy medicine and its people. "The Association did increase college fees," says one journal; "the association did not raise the price, so as to keep the poor and ignorant from the profession," says another; "the Association wants pupils to spend four years in study, and no one can afford so much time," says a third, and a fourth says "the time of study is dependent entirely upon the student's application to his task and his teacher's fitness and energy." Every journal has its opinion, all derogatory to the action of the Association, diametrically opposed to each other, but forcibly and elegantly expressed in choice English. One cannot fail to appreciate the beauty of diction,—choice figures of rhetoric are scattered as promiscuously as sky rockets on a fourth of July evening,—though he may be terribly confused as to which critic is right in his conclusions, and, because of the contrariety of the criticisms, may almost doubt whether there is any serious defect in the action of the College Association; might imbibe a notion that the Medical Journals have arranged a tournament that they may show their skill and prowess without harm to themselves or anybody else, in the presence of gaping crowds, who have been raised to dread goose quills and dark fluids. The Association sits still and looks quietly on the passing scene, the most interested, because the most astounded of

all the spectators. Their action is made the target for all the gallant knights of the quill, whose blows fall in all directions and with tremendous force, but so at cross purposes that the greatest risk is to the contestants themselves, the target is comparatively safe.

The very display of energy in regard to the action of the Association, however, and the uncertainty as to the conflicting denunciations, prove conclusively; First, that there is a cause for complaint in the administration of Medical Colleges. Second, that there are other parties or powers, who are as blamable, if not more so, than the Medical College Association, for the mal-administration of the colleges. We became early in our career convinced of the intimate relation between cause and effect, and listened to the repetitions of the homely saying, "where there is so much smoke, there must be fire," as the embodiment of this philosophical sequence. We were not, however, long in learning that smoke when scattered and hugging the ground soon brought confusion as to direction whence its source was to be sought, and that other than the original place would under certain circumstances be most smoky. This seems to be the trouble now; the greatest volume of smoke has wafted from its source, and hangs over the Medical College Association, therefore, that Association is blamed terrifically and continuously, perhaps immoderately.

What is this much abused body, and of what crimes has it been guilty? The association is composed of delegates from the colleges of a certain standing, and meets annually to devise schemes for the promotion of the interests of the colleges, indirectly for the advancement of the profession. It is to be presumed that as this, so far as the colleges are concerned, is a business matter, that the faculty of each college selects the best qualified representative for the supervision of its interests, and experience justifies this presumption. It is this recollection that causes us to tread so lightly in this field. Our timidity, our prevailing characteristic, warns us in this contest. With such representatives, can it be supposed that colleges are to be intentionally misdirected? These delegates, having a pecuniary interest in the colleges, must of necessity do what seems best for them, because of themselves. The strongest of arguments, self interest, points to their securing the college's advancement *prima facie*, and the burden of proof that these delegates, as a body, act unwisely or from impure motives rests upon the accuser. Notwithstanding the universality of the condemnation of the American Medical College Association by the medical press, THE HOSPITAL GAZETTE

always prompt in administering deserved reproof, and speaking its piece in no uncertain words or tone, in such a cause, to its large audience, simply and quietly says, that the Association has been roughly handled. The Association has been doing its utmost to harmonize inharmonious elements, and has received the usual award of merit to the peace-maker who steps in to regulate a family quarrel, a contused cranium, some new sutures are discovering themselves on and through its occipital region.

The Association has undoubtedly exercised a sound discretion in regard to increasing the tuition fee and the time for study. The delegates being proprietors of these institutions, look at the financial aspect of all questions as business men, and decide as they should; decide with reference to the interest on the capital invested, to the expense of carrying on the school and the value of the time of the teachers, if engaged in practice, and other proper considerations. These, and not the poverty, nor the wealth of students should regulate the fee. Sympathetic or extravagant notions should exert no influence, where right and reason can accurately determine the result in questions of doctor-making, and we are satisfied that the minimum adopted for tuition fees by the Medical College Association presents the most reliable and acceptable figure. We have not interfered with druggists in their price-lists, because the subject is none of our concern, at least until we become seller or purchaser. College fees are not more intimately connected with the profession, than drug price-lists, therefore are without the jurisdiction of the profession.

A minimum time for study was positively demanded by the profession, and the action of the association in demanding a specified time was a grand move in the direction of progress. It may work to the detriment of a few born doctors, sons of doctors, who begin their special studies under parental guidance in the very earliest absorbing days of their lives, but such cases are few, and the damage to them is very slight, since the extra preparation brings more prompt and valuable remuneration, when they begin active work. This provision requires all who have the intention of practising medicine to consume three years previous to their realizing their purpose with that notion in their minds; how these years are consumed by each student, so far as diligent application to the task before him is concerned, has not been fully determined by the Association. Even in the unexceptionally worst cases of lazy students, the forces of association, absorption and adhesion develop in their acquiring some knowledge. This long period causes these forces to gather additions about their intention, which serves as a nucleus.

These two reforms have been persistently advocated by the Association, and have furnished the material for the major portion of the opposition to it which certainly does not come from any desire to benefit the profession. While pretending to befriend the poor, this opposition encourages young men to seek a superficial knowledge, and induces them to be satisfied to struggle through their professional careers, hoping and guessing as to their labors, or, to be disgusted with their ignorance and inability, and retire.

The Association, combatting the selfish notions, the greed, the pomposity of opponents has not made great progress; not many of the colleges have joined in the league, but the start has been made, and sympathy for and with the Association and its projects is being fully extended by the medical profession. A sudden uprooting of old plans was not to be expected generally, especially as the time of such change would offer starveling institutions a splendid chance to reap a harvest from the disaffected pupils.

The Association has not advocated loudly and broadly other changes of vital interest to the profession, because the laws of the different states restricted them. The laws by which college graduation is substituted for examination for admission to the profession deprives the Association of the power to gather its energies for its own proper work without being greatly embarrassed by other interests and complications. The Association naturally desires to rid the colleges of their encumbrances, and have them operated as schools, and schools only. This isolation contains promise for them and for the profession, and is the one thing demanded. The absurd notions of antiquity which hamper these schools must be removed, and they must assume their distinctive character as places of learning. The legislature can sever the tie, bringing all these institutions on a level, after which the race will be to the strong, as it should be. Every school will be measured by the same standard, and the results of examinations will settle all jealousies and bickerings. This linking of the colleges to the profession has prevented substantial progress, and is the present great hindrance, since it permits and encourages unfairness and uncertainty in every manner and at all times. The legislature is responsible for this anomaly, but the Association is daily belabored as though the responsibility rested on its shoulders. To a certain degree, the Association, being cognizant of the evil and the remedy, is at fault for not championing the movement for freedom for the colleges. They are chargeable with the sin of omission, but the legislators are the genuine culprits, deserve and the censure.

It would be amusing to witness the transformations in the colleges after the passage of the law authorizing examining boards for the medical profession. Some grand lecturers would weary of their occupation and retire from the rostrum by unanimous consent of themselves, ratified by the voice of their pampered pupils. Other teachers, now hardly known outside of the school walls, would bound into prominence, as the telltale examination results came to the public ears. The colleges that were conducted as schools in which students were disciplined and taught by thorough teachers, and prepared to acquit themselves with credit before any board of examiners, would stand out distinct and grand, would attract the mass of pupils, would receive as they deserve, support, without prodigious efforts at solicitation, such as now disgrace the colleges. The colleges will stand upon their own merits, will receive favors, when success crowns their efforts—will be applauded for their triumphs; success attracts favors. The inefficient institutions will be hurried out of existence, starved out. Everyone with the natural prompting will expedite their downward movement.

It is useless, however, to conjure such pictures now, and wish for their realization. The laws governing the admission to the profession prevents any experiments looking towards a millenium in one or a few of the colleges. Common rules of business preclude the possibility of one or two colleges adopting for themselves regulations which will be conducive to the interests of the medical profession, but which will make their institutions seem more oppressive to students than other colleges. The financial outlook discourages any such absurd notions, and the dollar question is the mainspring of action in medical colleges to-day. They are business enterprises, and profit is the end sought. If intellectual superiority adheres to the profitable methods employed, then the profession gains, but the profit must come, whether science gains or loses.

We fully appreciate the situation of the members of the American Medical College Association; they are running a money-making institution for the purpose of making money. That is the unvarnished tale. The law, which must restrict all enterprises of a public nature presents some opportunities for giving small returns for the money received, but as the money is the object aimed at, no qualms of conscience about the character of these opportunities bother the gentlemen of the Association. If they do have occasional twitchings of conscience, they have schooled themselves to make little external show.

The members of the Association cannot well personate the Virgin Mary, but there is no necessity for

treating them as the swine that the Bible tells us rushed down the hill, and drowned themselves.

EDUCATIONAL TOMBS.

A structure that for two-thirds of a year contains a large number of individuals, coming from different portions of a large city, carrying the special odors, disease taints and organic material of their homes with them and constantly throwing out the exhausted matter from their lungs and poison from their bodies and garments cannot be in a pure condition at the end of the time specified. We refer to our public schools. Some of the organic material, the poison germs must still remain, in the building even though it has been aired, washed and dusted. Infection may be on the walls, in the desks, in the cracks of the floor, ready to bring forth fruit like seed thrown into good ground, "some thirty, some sixty and some one hundred fold." The practice of closing the school houses during the long vacation, occurring in a hot season, is a great mistake; possibly a crime. A building that has contained so many individuals that are to a certain extent carriers of the atmospheric and other peculiarities of different neighborhoods and homes should certainly be well ventilated during occupancy. *They are not.* The organic material, and the seeds of various diseases that, therefore, find lodgment here in term time should be swept, washed, blown out, oxidized during the long vacation. *They are not.* The Board acting in the light of sanitation should order the windows open throughout the building for at least ten hours of every day for air and sunshine. Ventilation in term time has been objected to on the score of giving colds. In vacation the only occupants of the rooms are the chairs and desks. The over-careful Board may fear giving them stiff joints and lame legs, but we think that with careful management no such harm would result. Even though the bust of old Webster stood in a draft, and catching cold, should sneeze, the only result would be to shake off some of the dust that the janitor's brush had failed to reach. Better all these evils than a building closed for so long a time, to be opened only on the day that school begins. Let in God's scavengers, the air and sunlight, to purify the school-houses throughout the entire period of vacation, and there will be a wonderful return in happy faces and active limbs when the moment for school work arrives.

We are pursuing no myth, the sickening evidence is within your reach. Let any thoughtful parent hasten to the school, now that vacation is about to end, and enter a class room and look about him. Dark as a dungeon, with close-drawn curtains;

damp and stifling as a tomb, yet it has been white-washed, painted, scrubbed and dusted—these last are the great sanitary precautions of the school trustees of every city of the land. Such is their view of sanitation for the schools, and will be until Medical Inspection is ordered for them.

SELECTIONS FROM JOURNALS.

THE USE OF FORCEPS AND ITS ALTERNATIVES IN LINGERING LABORS.

Dr. Robert Barnes, in his opening address at the debate on this subject at the Obstetrical Society of London (*Lancet*, May 17, 1879), stated the following proposition as points that chiefly challenge discussion:

1. In lingering labor, when the head is in the pelvic cavity, the forceps is better than its alternatives.

2. In lingering labor, when the head is engaged in the pelvic brim, and when it is known that the pelvis is well formed, the forceps is better than its alternatives.

3. In lingering labor, when the head is resting on the pelvic brim, the liquor amnii discharged, and it is known, either by exploring with the hand or by other means, that there is no disproportion, or only a slight degree of disproportion, even although the cervix uteri is not fully dilated, the forceps will generally be better than its alternatives.

4. In proportion as the head is arrested high in the pelvis, in the brim, or above the brim, the necessity, the utility, and safety of the forceps become less frequent.

5. As a corollary from the preceding proposition, increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation, are called for.

In most things there is a middle way. "Ni jamais, ni toujours," is a proverb full of wisdom. I cannot better illustrate the wisdom of deducing the greatest good from over-caution on the one hand and from too bold enterprise on the other, than by citing the precept and practice of Boër. This famous surgeon, having witnessed in Paris the extreme activity of French midwifery, and in London the too procrastinating practice of England, recognized the middle course as the best, constructed his forceps of medium length, saying, "Everything is not to be taken away from Nature, neither is everything to be left to her."—*Am. Jour. Med. Sci.*

CASES OF ANTISEPTIC OVARIOTOMY.

Under the care of DR. BARNES, ST. GEORGE'S HOSPITAL.

CASE I.—M. A., aged 60, married, with seven children, was admitted into the Burton Ward, under Dr. Barnes, on February 28th, 1878. The tumor had been noticed to be growing about eight months before admission. On March 23rd, she was tapped, and four quarts of dark syrupy fluid removed. She was much relieved, and went to Wimbledon for a month. On June 12th, she was readmitted and was again tapped, with result as before. On July 30th, Dr. Barnes performed ovariectomy under the carbolic spray and the

usual Listerian precautions. Narcosis was produced by ether. The incision was six inches long. There were firm adhesions of the intestines to the tumor, which bled freely when broken down. They were ligatured with fine whipcord. Eight pints of fluid were drawn from the cyst. The pedicle was transfixed with whipcord and dropped into the pelvis. The abdomen was sewn up with silver sutures. The subsequent dressings of the wound were done antiseptically. The stitches were removed on August 12th; there was little or no discharge. This patient, both before and after the operation, had a systolic murmur at the apex of the heart. Recovery was uninterrupted. She was discharged cured on September 7th.

CASE II.—E. L., aged 18, was admitted on August 21st, 1878. She had never menstruated. The tumor began to grow four months before admission. The abdomen measured $38\frac{1}{2}$ inches round at the umbilicus. Ovariectomy was performed by Dr. Barnes on September 23rd, under the carbolic spray and with complete antiseptic precautions. Narcosis was produced by ether. An abdominal incision about six inches long was made, and the trocar inserted into the tumor. A few ounces of thick fluid escaped. The trocar was removed and the puncture in the cyst enlarged, when several pints of the thick fluid escaped. Dr. Barnes then introduced his hand and broke down the softer parts inside the cyst. There were no adhesions. There was a large quantity of ascitic fluid. The solid part of the cyst was drawn out, the pedicle secured by a Chambers's clamp, the cyst severed, and the pedicle transfixed with whipcord and returned into the pelvis. The abdomen was sewn up with silver sutures. The patient, who appeared nearly asphyxiated early in the operation, breathed more easily as the cyst became evacuated. Before the operation, the heart's apex-beat was in the second intercostal space; after the operation, it gradually descended to the fourth intercostal space. Recovery was uninterrupted. She left the hospital in good health on November 7th.

CASE III.—E. W., aged 47, mother of thirteen children, had been tapped by Dr. Barnes in 1877. She was admitted on April 3rd, 1878. On June 25th, Dr. Barnes performed ovariectomy antiseptically. The incision was about seven inches long. The cyst was adherent in two places to the abdominal walls, one on each side: the adhesion on the right side was broken down by the hand; that on the left was secured by a clamp and divided. The cyst contained colloid matter, which was evacuated through the trocar. The pedicle was transfixed with whipcord, and returned into the pelvis. The abdominal wound was sewn with silver sutures. The patient was discharged cured on September 10th.

CASE IV.—M. H., aged 36, married, with nine children, was admitted on October 2nd, 1878. She nursed her last baby till it was six months old (*i. e.*, March 1878), then noticed that she was getting thinner and her milk stopped. Her circumference was forty-five inches. The cyst was tapped on November 21st, and four pints of colloid fluid of specific gravity 1047, containing ovarian corpuscles, were drawn off. She had lost ground, the feet

swelled; dyspnoea; pulse 100; a little albumen in urine. On November 25th, ovariectomy was performed by Dr. Barnes under the usual antiseptic precautions. An incision three inches in length was made, when about eight pints of ascitic fluid escaped. The omentum was adherent in many places; these adhesions were either tied or cauterized. There were extensive adhesions to the transverse colon and appendices epiploicæ. The cyst was multilocular, and contained colloid fluid. The various cysts were evacuated. There were adhesions to the left kidney. The pedicle was transfixed with whipcord and returned. The abdomen was sewn up with silver sutures. She died four days after the operation, having been comatose for three days preceding her death. At the necropsy, the lungs were found congested. The liver was yellow and very soft from fatty degeneration. The kidneys were in an advanced state of cirrhosis; the tubes being blocked with colloid casts. The peritoneum was glued together by yellow lymph. The mucous membrane of the uterus was lined with grumous bloody fluid; at the fundus, there was a little pus.

CASE V.—M. M., aged 36, married, with six children, was admitted on October 14th, 1878. The abdomen was tapped on October 16th, and seven pints of foetid whitish-green fluid drawn off. There was a systolic murmur at the apex of the heart. She had œdema of the legs, a little albumen in the urine; her circumference was forty-three inches. On October 23rd, she was suffering from orthopnoea; lips cyanosed. Pulse 140. On October 24th, she had two alarming attacks of dyspnoea. Her condition was so critical that, after consultation with Mr. Pollock, it was determined to operate early on Sunday morning. Mr. Clover kindly undertook to give ether. Dr. Barnes performed the operation under the antiseptic method. On October 27th, an incision of four inches was made. A piece of omentum stretched across the cyst was cut across, and part removed. A small amount of ascitic fluid escaped. No fluid escaped through the trocar; the puncture in the cyst was therefore enlarged, and a quantity of semipurulent fluid ran off. The tumor was still too large to be drawn through the abdominal wound; so another opening was made in it, from which twenty pints of clearer and less foetid fluid escaped. A few slight adhesions were broken down. The tumor was drawn out, and the pedicle was transfixed with whipcord and dropped into the pelvis. The abdomen was sewn up with silver sutures. The tumor weighed 10 lbs.; it consisted of two large cysts and several smaller ones; the largest sac was lined with a thick and distinct pyogenic membrane. The stitches were removed on November 1st. She was discharged cured on December 10th. All Dr. Barnes' cases were treated in a separate ward, admirably adapted for the purpose, at the top of the hospital.

(UNDER THE CARE OF MR. HAWARD.)

CASE VI.—Caroline P., aged 29, married nine years; no children. Her family history was good. She menstruated regularly since the age of twelve. There was abdominal enlargement, of eight months' duration, commencing on the right side. Two

months before the operation, the abdominal tumor was tapped, and eleven pints of viscid brown fluid withdrawn, with diminution of the lower part only of the tumor. The tumor soon refilled. Right ovariectomy was performed on August 3rd, 1878, by Mr. Haward. The patient occupied a separate ward. The operation and after-treatment were managed antiseptically by means of a spray of sulphurous acid solution. There were numerous parietal and omental adhesions. The pedicle was tied with silk and returned. She recovered in one month; and remains well.—*Brit. Med. Jour.*

THE CAUSATION OF SLEEP.

The learned German alienist, Dr. Siemens, concludes that sleep is due to the activity of certain circumscribed parts of the brain, which form an inhibitory centre, and which are situated in the medulla oblongata, near to the convulsive centre. In support of this view, the connection between sleep and epilepsy is alleged. The inhibitory sleep centre stands in direct antagonism to the cerebral cortex; if the one is in a state of activity the other remains passive; the former can only exercise its function when the cortical substance is either inactive or nearly so. Sleep is much more easily induced in childhood, as the convolutions of the brain are at that time only partially developed. Sleep is also much more frequent and continuous when the cortical substance has degenerated, as in paralytic dementia; when its nutrition is faulty, as in anæmic conditions; also when it is to some extent paralyzed by the action of hypnotics or by excessive cold. On the other hand, no sleep can be obtained when the cortex is in a state of activity, due to strong psychic impressions, excesses, alcoholism, or any form of mental disease. When, owing to some morbid condition, sleep has been absent for a length of time, the products of fatigue must have been generated in the body in large quantities, but still the hyper-activity of the cortical substance prevails and prevents the occurrence of sleep.—*Med. and Surg. Reporter.*

THE CURE OF HEMORRHOIDS BY THE HYPODERMIC INJECTION OF CARBOLIC ACID.

Dr. Edmund Andrews, Professor of Surgery in the Chicago Medical College, has recently made (*Chicago Med. Journal*, May, 1879) a laborious inquiry into the results of over 3300 cases treated by this method, reported to him by about 300 physicians. From a study of these cases he deduces the belief that, if the following rules be observed, the method of treatment by hypodermic injection will be less painful than any other, and equally safe:—

1. Inject only internal piles.
2. Use diluted forms of the remedy at first, and stronger ones only when these fail.
3. Treat one pile at a time, and allow from four to ten days between the operations.
4. Inject from one to six drops, having smeared the membranes with cosmoline to guard against dripping. Inject very slowly and keep the pipe in

place a few moments to allow the fluid to become fixed in the tissues.

5. Confine the patient to bed the first day, and also subsequently if any severe symptoms appear. Prohibit any but very moderate exercise during the treatment.

His final conclusion is that this mode of treatment is a valuable contribution to scientific knowledge, and that the cautious injection of hemorrhoids with carbolized solutions will remain as one of the permanent operations of surgery. The operation is to be performed in the following way: The pile is exposed to view, and the anus smeared with an ointment to prevent smarting in case the fluid should chance to drop. The operator then takes a sharp-pointed hypodermic syringe, charged with the carbolized liquid (which has been used in varying strength from one part of the crystallized carbolic acid to thirty of olive oil or glycerine up to equal parts), and slowly throws a few drops into one of the piles. The pipe is left in the puncture a few moments to prevent the fluid from running out, and to allow it to become fixed in the tissue. The pile turns white, and in the most successful cases withers away without pain, suppuration, or sloughing. Only one pile is treated at a time, and about a week is allowed between the sessions, until all are cured. Most of the cases thus operated upon suffer a sharp temporary smarting, and a few have a terrible and prolonged agony. The majority are cured, however, without interrupting the patient's business.—*Am. Jour. Med. Sci.*

PROGNOSIS IN CASES OF DIABETES COMPLICATED WITH GANGRENE.

Peyrot has arrived at the following conclusions (*Thèse de Paris*, 1878; and *Bull. Génér. de Ther.*, March 15):—

1. The prognosis is always more unfavorable in cases where the affection has not been early recognized, or where it has progressed rapidly, and the patient is very weak.

2. Incisions prove very useful in cases where an inflammatory process exists, but aggravate the condition of the patient if he should be suffering from spontaneous gangrene.

3. Surgical intervention is always useless in furuncular anthrax, but necessary in the diffused form.

4. Large incisions may be practised in cases of diabetic phlegmon without perhaps incurring any great risk; with the exception that the edges of the wound have a strong tendency to modify. But this plan seldom prevents the wound from healing, and only retards the process of cauterization.

5. In cases of superficial gangrene the patient's life is seldom in danger, and, as a rule, he recovers.

6. Deep-seated gangrene of the extremities is almost always fatal, being the final symptom of the glycosuric condition; in short, it may be said, that hitherto no case of diabetic pulmonary gangrene has been known to recover, this complication always ending fatally.—*London Med. Record*, May 15, 1879.

ON CHRONIC BRIGHT'S DISEASE, AND ITS ESSENTIAL SYMPTOMS.

Dr. F. A. Mahomed, Medical Registrar to Guy's

Hospital, has recently published in the *Lancet* an interesting article on this subject, and his views are briefly summarized (*Lancet*, March 29, 1879) in the following propositions:

1. Albuminuria, though occasionally produced by other causes, is generally the result of increased pressure in the capillaries of the kidney, either venous or arterial.

2. Neither albuminuria nor dropsy are usually present in chronic Bright's disease; when present they indicate acute or epithelial changes.

3. The blood-condition which produces the high arterial pressure of Bright's disease is the primary condition, and is not secondary to deficient renal excretion, as held by Bright himself, and subsequently by nearly every authority upon the subject.

4. The most generally accepted account of the disease and its symptoms fails to recognize it in by far the larger number of cases in which it exists.

5. Cases present themselves wearing the aspects of various forms of heart disease, of bronchitis, of cirrhosis, of cerebral disease, and many other conditions, in which we can only discover the existence of chronic Bright's disease, as the *fons et origo mali*, by the signs of high pressure in the arterial system.

6. The cardio-vascular changes, when found alone, may be taken as evidence of the existence of the disease.

7. Similar changes to those found in the kidneys exist also in the mucous membranes, in the skin, and in other parts.

8. The condition of high pressure is almost constantly present in old age, and, in one form or other, brings about a large proportion of the deaths in persons over fifty.

9. The existence of high arterial pressure in the pulse of young persons indicates a diathesis, and is of grave importance.

10. The same condition, being of frequent occurrence, after the age of fifty is not of such great importance, unless present to an extensive degree; it then produces serious symptoms, and calls for active treatment.

Of these propositions, Nos. 6 and 7, and in great measure No. 3, have been already enunciated by Sir Wm. Gull and Dr. Sutton.—*Am. Jour. Med. Science.*

CASE OF EARLY WOMANHOOD.

Annie D., aged 4 years, was brought to me as an out-patient at the Children's Hospital here, by her mother, who stated that, since the child was two weeks old, she had suffered from a discharge from the genitals, lasting from two to three days, and returning as nearly as possible every month; the character of the discharge being, to use the words of the mother, "exactly the same as from herself, when she was unwell." The child was a fat plethoric little creature, with well developed breasts, as large as are usually found in young women at the age of 16 or 17, after menstruation has become established; at times, according to the mother, they became quite hard and prominent; the nipples were dark, and rather large, over a *centimètre* long, and standing prominently out in the centre of dark areolæ, two *centimètres* in diameter.

The external genital organs were well developed, the labia minora being especially prominent. With the greatest ease, I passed my index-finger two inches and a half up the vagina, without causing the child the slightest pain. The cervix uteri was large; and, indeed, the whole organ seemed fully as big as the average virgin uterus at puberty. The front of the abdomen and the back were covered with patches of ephelis. The child was evidently rickety, genu valgum being marked.

The case seemed to me an interesting one, and worth recording; for, excepting the absence of pubic hair, the child was a perfect little woman. Strangely enough, her precocity was confined alone in a sexual direction; for whilst of her own accord her mother had seen her frequently "offer her breast to the baby," yet mentally she did not exceed the capacity of her age. The presence of the ephelis, or *taches hépatiques*, is undoubtedly rare in infants; and in this case, being most likely connected with the advanced stage of sexual development of the child, they enhance the interest of the case.

DAVID DRUMMOND, Physician to the Children's Hospital, and to the Infirmary, Newcastle-on-Tyne.—*Brit. Med. Jour.*

HOSPITAL FORMULARY.

PHARMACOPŒIA OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

PULVERES.

7. *Pulvis Gentianæ Et Quassiae.*

R.

Gentianæ.....
Quassiae.....
Cinnamomi.....aa 3 ij

M.

Sig. Put in a pint of boiling water, and when cold strain; take a wineglassful three times a day.

8. *Pulvis Juniperi Compositus.*

R.

Juniperi.....
Potassii Bitart.....aa 3 j

M. Et. ft. chart. No. 1.

Sig. Put in a pint of boiling water, and when cold strain; take a wineglassful three times a day, before meals.

9. *Pulvis Anthemidis et Quassiae.*

R.

Anthemidis.....
Quassiae.....aa 3 j

M. et ft. chart. No. 1.

Sig. Put in a pint of boiling water, and when cold strain; take a wineglassful three times a day, before meals.

10. *Pulvis Calumbæ Compositus.*

R.

Calumbæ.....
Zingiberis.....aa 3 ss
Sennæ.....ij

M. et ft. chart. No. 1.

Sig. Put in a pint of boiling water and when cold strain; take a wineglassful three times a day.

11. *Pulvis Cimicifugæ Compositus.*

R.

Cimicifugæ.....3 j
Gentianæ.....
Zingiberis.....aa 3 j

M. et ft. chart. No. 1.

Sig. Put in a pint of boiling water, and when cold strain; take a wineglassful three times a day.

12. *Pulvis Potassii Bromidi Compositus.*

R.

Potassii Bromidi.....3 j
Ferri Sulph. Exsic.....3 ss
Calumbæ.....
Zingiberis.....aa 3 iv

M. et ft. chart. No. 1.

Sig. Put in a pint of boiling water, and when cold strain; take a tablespoonful three times a day.

TINCTURÆ.

1. *Tinctura Iodinii Et Opii.*

R.

Tinctura Iodinii.....f 3 vj
Tinctura Opii.....f 3 ij

M.

For external use.

2. *Tinctura Saponis Viridis.*

R.

Saponis Viridis.....3 j
Alcoholis.....f 3 ss

M. Dissolve and filter.

To be used externally with water.

UNGUENTA.

1. *Unguentum Diachyli.*

R.

Plumbi Oxidi.....3 jss
Olei Olivæ.....3 vjss

The oil should be first mixed with water and heated; then, while fresh water is poured in and the mixture stirred, the litharge is gradually added.

5. *Unguentum Belladonnæ Compositum.*

R.

Ext. Belladonnæ.....gr. x
Ext. Stramonii.....3 ss
Acidi Tannici.....gr. viij
Adipis q. s.....ad 3 j

M. et ft. ungt.

6. *Unguentum Hydrargyri Compositum.*

R.

Ungt. Hydrarg.....
Ungt. Belladonnæ.....
Ungt. Iodinii.....aa 3 ij

M. et ft. ungt.

7. *Unguentum Veratriæ.*

R.

Veratriæ.....vj
Adipis.....3 j

M. et ft. ungt.

MISCELLANEA.

Syrupus Calcis Lacto-Phosphatis.

R.

Calcis Phosphatis Precipitatæ. . gr. xvj

Acidi Lactici q. s. ad solutionem

Syrupi q. s. ad f 3 j

Solve.

NEWS ITEMS AND NOTES.

Skulls of Assassins.—Dr. Bordier has communicated to the Society of Anthropology of Paris the results of the study which he has made of thirty-five skulls of assassins, shown at the Trocadero by the authorities of the museum of Caen. These crania were of considerable size, which, as is known, constitutes a sign of superiority. Ought it then to be concluded that assassins are more intelligent than honest people? A more complete analysis soon shows that this is not so. The frontal region—the seat of the intellectual faculties—is, in fact, somewhat less in assassins than in other men; on the other hand, the lateral or parietal region is more developed in them. This region appears, according to recent researches, to be the seat of the motor centres—the centres of impulse. It is that which is found atrophied in apathetic idiots, and hypertrophied in those who are in constant motion. Further, the back of the head is much the same in them as it is in the rest of the world. To sum up, less reflection and more action than other men would be the intellectual disposition which this craniometric study seems to assign to assassins. In this they approach prehistoric man, and even the protohistoric. In them also is found a frontal region somewhat less, the parietal region somewhat greater. This instantaneity of action, which is thus presumed in the assassin, was, it is suggested, probably a precious quality in the savage of the stone period. The conclusion of M. Bordier is philosophically curious enough; it is that the criminal is an atavic being “similar to an animal, who, born of parents long domesticated, tamed, and habituated to labor, should appear suddenly with the unconquerable savagery of his ancestors.” Examples of this kind are seen amongst domestic animals. Amongst men, the analogues of these reversions (*retifs*) would be our criminals. The second part of the work of M. Bordier is devoted to the pathology of criminals. It is still more demonstrative in its character and object. Of thirty-six crania, M. Bordier found only three normal, twelve abnormal, and twenty-one pathological. The lesions affected most often that same parietal region which has been mentioned as frequently hypertrophied among them.

The Medical Society of the State of New York.—The Transactions of the Medical Society of the State of New York for 1879 are now published, and for sale at \$1.65 a copy. If sent by mail, twenty cents additional will be required for postage.

The volume this year is much larger than any heretofore published by the Society, containing over 700 pages. It has, besides the usual proceedings at the annual meeting, President's address, report of

committee of Hygiene, and obituary notices, forty-six original papers on various topics of medicine and surgery. There is also a complete list of the officers and members of the several County Medical Societies, corrected up to as late a date as was practicable. The book is printed on good paper, and handsomely and substantially bound, in uniformity with several preceding volumes.

The State Society deems it expedient to dispose of the Transactions mainly through the agency of the County Societies. It has therefore made a regulation, that each County Society shall purchase each year a number of copies, equal to five times the number of delegates it is entitled to send to the State Society. The County Society then sells to its members, or otherwise disposes of the volumes as it sees fit. Some such plan as this seems to be necessary, to render it safe financially for the State Society to undertake to publish its Transactions.

In view of this regulation, it is hoped that all those who wish the Transactions will at once send in their names to the Secretary of their County Society, so that he can, if necessary, order more than the quota assigned to the Society. The more promptly this is done, the better for all concerned.

County Secretaries, and others, should order their books of the Secretary of the State Society, accompanying their order with the necessary remittance, in the form of a postal money order or bank draft on New York. These should be made payable to Dr. Charles H. Porter, (55 Eagle Street, Albany N. Y.,) the Treasurer of the Society.

The Secretary on receiving them will forward the volumes, as may be directed, and send the Treasurer the remittance.

County Societies that have not taken their Transactions for 1878 can order them, with those for 1879. The Transactions of 1878 are held at \$1.10 per volume, postage 12 cents.

Permanent members, who have paid their dues for 1879, will receive a copy of the Transactions by mail. If any such fail to receive it, within a reasonable time, they will please notify the Secretary.

The Society has also on hand Transactions for the several years mentioned below, at the prices affixed. Orders for these should be sent directly to the Treasurer, (Dr. Porter,) who has the custody of these back volumes. For 1807-31, 1840-43, 1861, 1866, 1868, 1869, 1870, 1870, 1871, 1872 and 1873-4, 50 cents each, and 15 cents additional for postage; for 1860, 1862, 1864, and 1867, \$1.00 each, postage 15 cents; 1875, 50 cents and 18 cents for postage; 1876, \$1.50, 15 cents for postage; 1877, \$1.35, 16 cents for postage.

WM. MANLIUS SMITH, Secretary,
7 Myers Block, Syracuse, N. Y.

In order to appreciate the following, from the *Medical Press*, it must be remembered that “Devil’s dung” was one of the old names of assafoetida: A small boy, entering the shop of a Scotch druggist, said: “Ma mither sent me for a bawbee’s worth o’ that stuff for the wind; she dis na’ mind the recht name, but they ca’t deevil’s dirt.” To which the northern Knight of the Pestle replied, “Run awa hame and tell yer mither that I canna disturb the deevil for less than a penny.”

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, are so favorably impressed with the character and merit of the publication, should at once remit the amount of a year's subscription. We do not undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

THE CARBOLIZED CAT-GUT LIGATURE
APPLIED TO THE CONTINUITY OF ARTERIES.

BY
STEPHEN SMITH, M.D.,
Surgeon to Bellevue Hospital.

(Reported for THE HOSPITAL GAZETTE, and Revised by the Lecturer.)

The case of cancer of the tongue and pharynx which you have several times seen in the wards has terminated fatally, and I have an opportunity to exhibit to you the final results of the operation performed to arrest the frequent hemorrhages which were at one time rapidly prostrating the patient. You will recall the condition of the man when he first entered the hospital. He was emaciated to a skeleton, his skin was very sallow, he spoke in a whisper, and could only swallow liquids, and then with difficulty. The disease involved the side of the tongue, the tonsil, and the pharynx, as far as the parts could be explored. The only possible remedy was the application of a ligature to the trunk of the artery supplying the region from which the hemorrhage occurred. The proposition to ligate the external carotid was eagerly accepted by him. This operation was accordingly performed, every possible precaution being taken to prevent an immediate or remote unfavorable result. The ligature selected was the carbolized cat-gut, well prepared for the purpose. The patient bore the ether well, and the operation was without other unusual event than the escape of air from the lower extremity of the cut. When this was observed the proceeding was discontinued for a few minutes, during which the supra-clavicular spaces were noticed to fill and collapse, in alternation with the respiration. It was evident that air entered the connective tissue at some point near the clavicles, and it was believed that it penetrated from the air-passages through some opening made by the disease. The ligature was applied to the external carotid, close to its origin from the common carotid. This point of ligature was rendered necessarily, owing to the extension of the disease. The ligature was drawn tight but not so firmly as to divide the internal coats of the artery. The ends were cut short, the wound closed with wire sutures, and the carbolized gauze dressings applied. The carbolized spray was used throughout the operation. The escape of air into the cellular tissue proved to be no complication, and the wound united throughout. There was no change of temperature, nor other indication of inflammation. At the end of a week slight fluctuation showed the presence of pus, and on opening the cicatrix with a director a small quantity escaped, and the wound healed firmly under moderate pressure.

He remained very comfortable, without further

hemorrhages, swallowing somewhat more freely, until yesterday, six weeks after the operation, when he died quite suddenly. The wound remained firm and the cicatrix depressed. The autopsy disclosed the following condition of the parts at the seat of ligature. The cicatrix was very firm. On exposing the arteries at that point the origin of the external carotid was seen to be two or three times its natural size, and apparently surrounded with a ring of white tissue quite elevated above the artery, as appears in the specimen. In order to more thoroughly appreciate the changes which have taken place, the common and internal carotids have been laid open, and it is seen that they are of normal calibre, without any appearance of obstruction. On opening the external carotid, through and beyond the ring, the following points are noticeable:

1. There is no clot on the proximal side of the ligature.
2. The lining membrane is puckered, or folded upon itself, and firmly adherent.
3. Beyond the ligature there is a firm clot which extends to the origin of the superior thyroid artery.
4. The ring of new tissue contains a central black substance at some points, but at others the whole ring appears under the microscope to be one mass of newly formed fibrous tissue.

Looking at the specimen as a whole we must draw the following conclusions:

1. The artery was tied within a fourth of an inch of its origin.
2. The ligature did divide the internal coats but folded them firmly together.
3. No suppuration occurred, nor was there any destruction of the coats.
4. The ligature has been replaced by living fibrous tissue, the fibres passing around the artery.
5. The artery therefore was thoroughly obstructed by the ligature, but at the same time was rendered tenfold stronger.

To appreciate the importance of the results obtained by this ligature, I must remind you of the course of events when the silk ligature is used. Dr. Jones, whose "experimental treatise on the process employed by nature in suppressing the hemorrhage from divided and punctured arteries, and on the use of ligatures," gave the first philosophical account of the effects of the common ligature, states that it first excites inflammation on the internal and middle coats of the artery by having cut them through, and consequently, gives rise to an effusion of lymph by which the wounded surfaces are united and the canal rendered impervious; second, it produces ulceration of the artery around which the ligature is immediately applied, viz., the external coat. In other words, the silk ligature effects its object by severing the artery in part at the moment of its application, and the remainder by the slow process of ulceration. It follows that the silk ligature is destructive of the integrity of the artery, and that the success which attends its application depends entirely upon the doubtful process of repair. Secondary hemorrhage is, therefore, a perfectly legitimate occurrence after ligation by the old method, and by no amount of care can the operator positively prevent the accident. If now, we contrast the course of the carbolized catgut

ligature which, properly prepared and applied, strengthens instead of weakens the artery, never exposes to the dangers of secondary hemorrhage and yet effectually controls the circulation, and which admits of ligation at any point quite regardless of collateral branches, it will be apparent that an immense improvement has been made by the introduction of the carbolized catgut ligature into the practice of tying arteries in their contiguity.

The points which I wish to impress upon your memory are : 1. The catgut ligature should be well prepared ; that is, it should be thoroughly carbolized and yet sufficiently strong : 2. It should be applied with antiseptic precautions, that is, with the carbolized spray and dressings : 3. It should not be so firmly tied as to divide the coats of the artery.

ORIGINAL ARTICLES.

A STUDY OF ABOUT ONE HUNDRED AND TWENTY CASES OF FRACTURE OF THE PATELLA.

BY
DR. FRANK H. HAMILTON,
VISITING SURGEON TO BELLEVUE HOSPITAL.

FIRST PAPER.

54 CASES WHICH HAVE COME UNDER MY OWN OBSERVATION.

No one, so far as I know, has attempted to record and carefully study any large number of cases of fractures of the patella. It has seemed to me, therefore, that it might be profitable to do so, inasmuch as my own personal experience and the records of Bellevue Hospital furnish probably not less than 120 cases, most of which have been faithfully recorded.

I shall publish first the cases which have come under my own observation, numbering 54 ; and subsequently those not seen by me, which have been admitted to Bellevue Hospital.

My final conclusions or inferences I shall reserve for a third paper ; preferring at first to lay the case before the reader, permitting him to study them for himself and make his own inferences. We shall then be able to consider the various points illustrated with a better mutual understanding.

There is no impropriety, however, in my calling the attention of the reader to some of the points which have already attracted my attention. He will note :—1. The large proportion of simple transverse fractures, and the infrequency of comminuted and compound fractures. 2. The frequency of fracture from muscular action. 3. The frequency of early joint effusions. 4. The difficulty which has constantly been experienced in securing and maintaining apposition of the fragments. 5. The great variety of methods which have been adopted, and the frequent changes made in the treatment of the individual cases ; either because of their inefficiency, or because of the pain and excoriations or other more serious injuries which they have occasioned ; and the equally good results where the attempts to get close union have been less assiduous. 6. The uniformity of a fibrous union, with some separation. 7. The frequency of a re-fracture, and its more serious results. 8. The frequency of ankylosis, and its

proportion to the time the limb is kept in splints. 9. The great time which elapses before the functions of the limb are restored. 10. The inadequacy of the ordinary knee-caps while the patients walk about. 11. The remarkable power of restoration of the functions of the limb after a time, when no union of the fragments has taken place, if only the patient continues to use the limb, and thus develops the muscles.

M. Velpeau asserts that he has seen the functions of the knee joint "completely re-established, with an interval of two or three inches between the fragments of the patella."

"Such assertions," says M. Malgaigne, "are, in my opinion, only accounted for by some inaccuracy in examination ; and for my own part, I have never seen the functions of the limb completely restored, even when the separation was limited to one-third of an inch."

In reference to the cases contained in this and the subsequent reports as treated at Bellevue Hospital it seems proper to say farther, that the House Surgeons who have had the immediate charge of the cases, are almost without exceptions young men of the highest qualifications. They secure their positions through a severe concours. They are careful, attentive and ingenious in devices to accomplish their purposes—they have a large experience, and will in all respects compare favorably with the best class of surgeons either at home or abroad. What difficulties they have experienced, it is fair to say, therefore, will be experienced by other surgeons ; and where they have failed others will fail also. Of the skill of the distinguished gentlemen who are my colleagues on the visiting staff of Surgeons at Bellevue, it is unnecessary for me to speak, as no one would call it in question. I desire therefore to repeat, that all of the cases reported as having been their care, represent in their results the highest standard of excellence yet attained in the treatment of this unfortunate class of accidents. The same must be said of the few cases reported as having been treated by Surgeons at other city Hospitals and elsewhere, all of whom are personally known to me as men of skill.

SIMPLE, TRANSVERSE FRACTURE, KNOWN TO BE THE RESULT OF A DIRECT FORCE—FIBROUS UNION.

CASE 1.—John McDonald, æt. 22. Fell upon his knee in July, 1859, breaking the right patella below its middle transversely. Dr. I. of Brooklyn, placed his limb upon an inclined plane, and secured it with rollers, &c. It was kept in this position six weeks, after which he began to walk. I examined his leg March 15, 1860, about nine months after the injury, and found the fragments united by a ligament three-quarters of an inch in length. He could not flex the knee more than 15°, yet the limb was strong and serviceable.

CASE 2.—Ed. Fitzgibbons, æt. 25, residing at 151 Navy Street, Brooklyn. Was kicked upon his left knee January 10, 1865 or '66, and admitted to Dr. Sayre's ward, Bellevue Hospital.

I took charge of him February 1, '65, when the service reverted to me. I found the limb dressed and supported upon my single inclined plane, the fragments being separated half an inch. Fibrous union.



Hamilton's single inclined plane for fractures of the patella.

FIG. 1.

CASE 3.—Mrs. Valorus Hodges, æt. 53. Fell upon her knee February 5, 1860, breaking the left patella transversely near its middle. The fragments were separated one inch. On the seventh day I applied a long, straight splint to the back of the limb, carefully fitted and padded, raised the lower end of the splint eight inches, and elevated the shoulders; securing the fragments as well as possible in place by a roller. This brought the fragments together within half an inch. A fibrous union resulted.

CASE 4.—Henry G. Van Hotten, æt. 22. Fell upon his left knee March 12, 1856, breaking it transversely. It was treated by a surgeon in Patterson, N. J. Mr. V. says it was kept in a splint more than one year, and that it was five months more before he had the use of his knee-joint.

November 18, 1863.—I found the fragments separated one inch, and united by ligament. He walked well, and was serving in the U. S. Infantry as a common soldier.

CASES 5 & 6.—(Both patellæ) John Dundas, æt. 22. Fell, Oct. 22, 1852, while asleep, from the third story of a dwelling house, striking his knees upon the stone sidewalk, and breaking both *patellæ* transversely.

Two surgeons took him in charge, and applied two long thigh and leg splints. On the tenth day he was sent to the Buffalo Hospital of the Sisters of Charity, and came under my charge. My inclined plane apparatus was applied, adhesive plasters were laid obliquely above and below the patellæ to secure apposition or approximation of the fragments, and the limbs bound to the apparatus with rollers saturated with flour paste.

On the 37th day the dressings were removed and not re-applied. Both patellæ had united by ligaments of half an inch in length.

CASE 7.—John Williams, æt. 26. Fell in 1869, breaking the left patella transversely. Admitted to Bellevue, ward 11.

I returned to duty March 1, 1870, and removed his splint March 3. He had been in the hospital with the splint continuously upon the limb three months and eight days. The fragments were united with a ligament three-quarters of an inch in length. The knee-joint was almost completely ankylosed.

CASE 8.—Edward Vedder, æt. 45. Was struck by a horse car, Sept. 25th, 1874, and taken to the Centre Street Hospital, where a posterior leg splint was applied.

Sept. 30.—Brought to Bellevue, 3d Surg. Division, my service. Found he had a transverse fracture of the patella; fragments separated one-half inch; knee swollen. A splint was secured to the limb, with a figure-of-eight bandage, about the knee, and the foot elevated.

Oct. 7.—Adhesive plasters "locked" over patella; figure-of-eight to knee and a plaster-of-Paris bandage from the ankle to the middle of the thigh.

Oct. 24.—29 days, splint removed. Fibrous union, one-half inch in length. Simple long splint.

Nov. 8.—Removed. 12th on crutches.

Dec. 7.—Considerable power of flexion. Can walk without crutches some.

Dec. 19.—Discharged.

CASE 9.—Samuel McEvitt, æt. 62. Slipped on the sidewalk March 17th, 1879, striking upon and breaking the left patella. The upper third of the bone was broken off. He did not know it was broken. A surgeon was called on the third day, and said it was not broken. Hot fomentations were applied, and until the 16th day after the accident he was in bed or upon the sofa, going from the one to the other without aid, except from a cane.

Admitted to ward 30, Bellevue, April 2, 1879. Knee swollen. Hot fomentations applied. Fragments separated about three-quarters of an inch.

The limb was dressed April 3d, the 17th day, with a long posterior, straight splint, retained in place with a bandage saturated with the silicate of soda in solution. Above and below the knee the bandage was carried in the form of the figure-of-eight, a pad of folded cloth being laid above and below the patella, next to the skin.

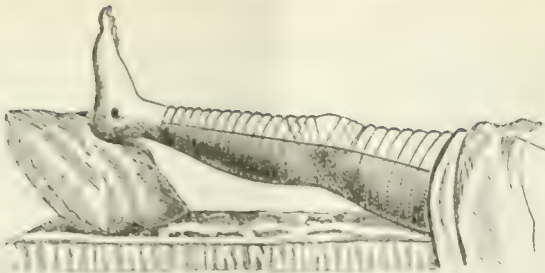
I came on duty May 1, and May 4th, 46 days after the accident, and 29 after admission the dressings were for the first time removed. The fragments were found united by ligament. Each fragment could be moved laterally and separately. The upper fragment was drawn up on its inner side five-eighths of an inch, and on its outer margin two-eighths of an inch. It was also displaced inwards about two-eighths of an inch. It could not by pressure be made to resume its natural position. The diameter of both fragments was lengthened half an inch, as if from hypertrophy or expansion of the fragments in the direction of their circumference. The lower edge of the upper fragment was depressed by the overlying pad, and the upper edge of the lower fragment elevated by the pad below.

The ankylosis of the knee was almost, but not quite complete, and all attempts at passive motion were very painful.

A piece of felt, long enough to extend from the middle of the thigh to below the middle of the leg, was now moulded to the back of the limb, covered with flannel cloth and secured in place by a roller. Instructions being given to the House Surgeon, to remove it daily and give to the joint passive motion; not however, flexing the limb sufficiently to cause much pain, or to endanger the newly formed ligament. He was permitted to go about on crutches.

June 24th.—Motion of joint a little increased. Felt splint laid aside, and limb left without bandages.

CASE 10.—Luke Cavanagh, æt. 60. Fell on his right knee upon the edge of a stone step, May 22,



Hamilton's portable, or bed, dressing for fractured patella.

FIG. 2.

1869, breaking the right patella transversely a little below the middle. Intemperate. Admitted to Bellevue Hospital, ward 11, 3rd Surg. Div. May 24.

There was pretty extensive ecchymosis and swelling around the knee. The bursa patella was distended with a fluctuating fluid. The capsule of the joint was also distended moderately. The fragments were apparently in contact, so that crepitus was easily developed.

A straight posterior splint was applied, secured with bandages, the bandages about the knee being laid obliquely above and below the patella.

The patient was very turbulent, and removed the dressings himself repeatedly five or six times.

June 2nd.—He was secured in a straight-jacket. This was removed from him on the 5th. The limb was again dressed on the straight splint, the fragments being supported with adhesive strips laid above and below the patella.

June 28th.—(35 days) firm ligamentous union, of one quarter of an inch. Some ankylosis.

June 30th.—Went out on pass and did not return.

CASE 11.—Mrs. McI—, aged about 40. Fell down a flight of steps outside of her door striking her left knee upon a stone side-walk, April 23, 1874, breaking the patella transversely a little above its middle. I saw her on the same day. The knee was much bruised and swollen. I applied at once a gutta percha splint made to fit accurately the back and sides of her knee, including considerable portions of the thigh and leg; and secured the splint with a roller, laying the limb straight upon pillows. The splint was covered with flannel cloth, and the roller was stitched to the cover. (My portable apparatus.) At short intervals subsequently, the splint was removed, and passive motion was practised very early. The fragments united, with a bond of about half-an-inch in length, which felt like bone; it is probably fibrous.

CASE 12.—Miss Ellen Budd, æt. 42. of Hayesville, Ohio. Fell upon frozen ground in April 1874, breaking the right patella transversely in its lower third. She was placed under the care of Dr. E. V. Kerrdig of Hayesville. He applied a long straight posterior splint, securing the fragments with adhesive plaster strips. No unusual inflammation or swelling occurred. At the end of four weeks, Dr. K. began to employ passive motion, and in about seven weeks the splint was removed, when the fragments were found to be united with a ligament of half-an-inch in length. The knee could then be flexed about 5°. She has since been using crutches, and when she consulted me, about seven months after the injury, she could move the knee-joint

through an arc of about 15°. The limb was slightly cedematous. The ligamentous bond was half-an-inch in length and firm. I advised the continuance of passive motion, and daily exercise in walking.

CASE 13.—(No apparatus. Good union.)—Theophilus Alles, æt. 56. Fell on the sidewalk Aug. 27, 1854, breaking transversely the left patella. The surgeon who was called probably did not recognize the fracture, as he only applied a roller. Two weeks later he was placed in one of the wards of the Hospital of the Sisters of Charity, Buffalo, and here, for reasons unknown to me, the same treatment was continued.

Oct. 1, 1854.—When my term of service commenced, five weeks after the accident, I found the fracture united with a ligament of half-an-inch.

CASE 14.—John Delaney, æt. 36. Fell March 7th, 1851, fifteen feet, striking on his knee and breaking the patella transversely. He came under my care two weeks later, when I applied my own apparatus (inclined plane). The fragments united with a ligament one quarter of an inch in length.

CASE 15.—A laborer, æt. 25, stumbled and fell upon his knee, when running at full speed. He was treated by Dr. Mixer, of Buffalo, and myself, with my own apparatus—the inclined plane.

Four months after the injury the functions of the limb were completely restored, the fragments having united with a ligament half an inch in length.

CASE 16.—Catharine McGloughlin, æt. 30, fell from a window, breaking the left patella in a transverse direction from side to side, but somewhat curved downwards in its middle. She received also severe injuries about her head and side. On the sixth day she was taken to the Presbyterian Hospital in this city and remained there five months. During the first eight weeks she had a posterior splint upon the leg. Then a plaster of Paris splint was applied, which she wore a few weeks. About two months before she called upon me she had a knee-cap applied, and has worn it to the present time.

August 26th, 1879, nine months after the injury, I examined the limb. The fragments were separated half an inch and united by a firm fibrous band. The upper fragment was slightly and the lower fragment very much hypertrophied, especially in its transverse diameter. She could flex her leg only to a right angle, but she could extend it fully. In descending or ascending steps she was obliged to put the sound limb first. She experienced almost constant pain in the region of the inner part of the lower fragment. The muscles of the left hip and thigh were much wasted. She was unable to work, and prayed that something might be done to stop the pain.

I advised that the knee-cap be discontinued, and that she apply hot water to the limb daily. The latter she had already done with some relief, at the suggestion of Dr. Gibney, of the Forty-second Street hospital.

SIMPLE TRANSVERSE FRACTURE—DIRECT FORCE—FIBROUS UNION—RUPTURE OF LIGAMENT.

CASE 17.—Michael Taylor, æt. 38. Fell while running, April 18, 1869, striking upon his left knee and breaking the patella transversely. He was admitted to the Long Island College Hospital, and the limb

was dressed upon my single inclined plane. The fracture united with a short ligament, but on the 22d of May, about five weeks after the fracture occurred, he left the hospital without permission and ruptured the ligament. I have no knowledge of the case after this.

CASE 18.—Patrick O'Hara, æt. 39. Broke his right patella, Sept. 18, 1876, by a fall upon his knee. Taken to Quarantine Hospital, (Drs. O'Dea and Anderson,) was in hospital three months, with posterior splint and adhesive plasters in form of the "lock strap." After being discharged, joint was rather stiff, but could walk and work.

Jan. 17th, 1879.—While walking stumbled and his leg bent under him to an acute angle, refracturing the ligament. Taken to Chambers St. Hospital, and the following day to Bellevue—service of Dr. Darby. Swollen and inflamed. Icebags applied and continued two weeks, then Dr. Morrow applied plaster-of-Paris. Staid in bed two weeks, and was then on crutches two weeks. At end of eight weeks splint removed and a plaster-of-Paris splint applied, open in front.

About the 7th of April was discharged and he wore the splint two weeks longer. Has been walking ever since.

Aug. 13th, '79.—Fragments separated $2\frac{1}{4}$ inches when the leg is straight, and $3\frac{1}{2}$ when it is bent. It bends only to a right angle. The lower fragment is wider than natural. He walks well on a level surface, but has to put the sound leg first in going up stairs. I cannot feel any ligament between the fragments; the articulating surface of the femur being distinctly felt.

CASE 19.—Dr. H. C. B. of Crawford Co. Pa., æt. 19. Fell upon a stone in March 1859, breaking the right patella transversely a little below its middle. A neighboring surgeon dressed the limb first with a roller. He then placed the limb upon a straight splint in a nearly horizontal position. It was kept in this position three months, being, however, occasional exposed and rubbed. At this time it had united by a ligament of about half or three quarters of an inch in length. The knee was then quite stiff. As soon as he began to use the limb the upper fragment commenced to draw up gradually, and at the end of a year it was separated three inches and a half.

I examined him in 1865, about six years after the accident. The upper fragment was separated three and a half inches, the same as at the end of the first year. There is only a long narrow ligament on the inside of the patella, in which a new patella has formed, one inch long by half an inch in thickness. The motions of the joint are free, and he walks without a halt. Long walks, however, fatigue this leg more than the other.

CASE 20.—Abraham Sackett, æt. 58. Fell upon his left knee, upon a railroad iron, January 22, 1872, breaking the patella transversely near its middle. The fragments were at once separated four and a half inches.

It was treated by Dr. John Nolan, of this city. My apparatus—the inclined plane—was employed, and the fragments secured with adhesive strips. This was continued nearly eleven weeks, when the fragments were found united with a ligament of one

quarter of an inch in length. He then began to walk with crutches and had a pretty good leg. Five months later he was thrown from a carriage and ruptured the ligament.

When he consulted me, October 3, 1873, nearly four years after the injury, the upper fragment was separated two inches from the lower. He could flex and extend the leg, and could walk tolerably well. Dr. Nolan informs me that he subsequently wore an elastic knee-cap. He is now dead.

CASE 21.—Mary Gorley, æt. 40. Fell in the street September 28, 1870, and on the same day admitted to Bellevue, 3d Surg. Div.

There was a transverse fracture below the middle, with a separation of two inches. Knee swollen, and considerable ecchymosis in popliteal space.

She stated that she had fallen on the ice four years before, and that a bone on the knee "stuck up;" that a doctor was called who put it on an inclined plane for eight weeks, and that she has never since then been able to straighten the knee. (The presumption is that there was a fracture of the patella).

The hospital record states that I saw the patient October 3, 1870, fifth day after last accident. The swelling was mostly gone, and a posterior leather splint was applied (my portable apparatus).

November 3.—Thirty-six days after accident—walking on crutches, makes no attempt to use the limb. Sent to Charity Hospital. She was discharged from Charity Hospital February 4, 1871. Result not known.

SIMPLE TRANSVERSE FRACTURE—DIRECT FORCE—NO UNION.

CASE 22.—Samuel Hanna, æt. 38. Fell upon the ice in December, 1871, striking upon his left knee and breaking the patella transversely about its middle.

I found Hanna in my ward at Bellevue, June 1, 1875, admitted on account of an abscess which had formed without any appreciable cause in the areolar tissue, just above the left knee. He had an old fracture of the patella in the same limb, the fragments being separated nearly four inches. He was unable to extend the limb by muscular action, there being apparently no bond of union between the fragments.

He gave the following account of the injury: The accident occurred as stated above in December, 1871, about three years and five months before. He was immediately taken to Bellevue Hospital. On the fourth day the limb was laid upon an inclined plane. On about the seventh day a plaster-of-Paris splint was applied, from the foot to the hip. He was permitted to go about on crutches. When the splint was removed the fragments were separated two inches. He has had no treatment for the fracture since.

CASE 23.—John Sharkie, æt. 24, a soldier in the British service. Was struck in the right knee while he was sitting with his leg bent under him.

He was immediately put under charge of the surgeon of the 89th regiment of infantry. Severe inflammation and swelling ensued, and no apparatus was employed until the twelfth day, a compress was then laid over both fragments, and they were bound on with a roller, the limb being laid upon an

inclined plane. The bandages were removed at the end of four months, when the upper fragment at once drew up toward the body. It was eighteen months before he could walk without a cane. This is the account given to me by himself.

Twenty-nine years after the accident, March 27, 1855, I found, when the limb was straight that the upper fragment lay two and a half inches above the lower, and when the limb was flexed it separated five inches. No trace of a ligament or other bond of union could be felt. He walks well, without a cane, there being very little or no halt, but he cannot walk fast.

SIMPLE TRANSVERSE FRACTURE—DIRECT BLOW—
RESULT UNKNOWN.

CASE 24.—John Mooney, æt. 63. Fell Jan. 17, 1873, striking on his right patella and breaking it transversely near its middle. He was received at the Park Reception Hospital on the same day. Dr. Fluhrer, the House Surgeon, applied a straight, flat, posterior splint. Six days later I found the fragments separated one inch, and directed a long leather splint to be substituted, fitted accurately to the back of the limb, covered with woolen cloth, and secured to the limb with bandages. The bandages being laid obliquely above and below the fragments, and the whole being stitched to the cover of the splint (my portable apparatus).

CASE 25.—Thomas Barker, æt. 30. While walking April 9, 1874, his left foot turned under him, and he fell upon the flagging, striking on the same knee. He was unable to rise.

On the same day he was taken to Bellevue, 3d Surg. Div., my service, and was found to have a transverse fracture of the left patella.

April 10.—A plaster-of-Paris splint was applied, the roller covering the patella in the form of a figure-of-8.

April 30.—21st day, discharged.

(No farther record of the case. He probably left with a promise to return.)

SIMPLE TRANSVERSE FRACTURE—DIRECT FORCE—
COMPLICATED WITH OTHER INJURIES—DEATH.

CASE 26.—Mrs. Catherine Sullivan, æt. 55. Fell through a hatchway, Oct. 9, 1866, breaking the right thigh and right patella. The patella was broken transversely. The fracture of the thigh was just above the knee and compound. She was admitted to ward 15, 3d Surg. Div., my service on the same day, and amputation was advised. This she refused to have made. Sufficient permanent extension was applied to steady the limb, and an attempt was made to save her life, but on the 30th of October she had a chill, and these continued to occur at intervals until the 3d of Nov., when she died.

SIMPLE TRANSVERSE FRACTURE, KNOWN TO BE THE
RESULT OF MUSCULAR ACTION—FIBROUS UNION.

CASE 27.—Dan'l Gary, æt. 24. Fell Jan. 26, 1873, and in the attempt to save himself, felt the left patella break. Admitted to Bellevue on same day.

Patient has had morbus coxæ in the right limb since childhood. The fragments of the broken patella were brought together with broad adhesive strips laid longitudinally above and below the knee, and "locked" in front. The limb was secured to a

straight splint. The whole being enclosed in a plaster-of-Paris splint.



FIG. 3.—LOCK STRAP.

Feb'y 5th.—Dressings removed. Apposition of fragments said to be perfect. Substituted starch bandage for the plaster-of-Paris, reinforced with long, narrow strips of zinc, laid longitudinally. Re-applied the adhesive strips as before.

Feb'y 12th.—Removed all dressings. Apposition said to be perfect. Substituted plaster-of-Paris, with zinc strips for starch.

Feb'y 25th.—For the fourth time splint reapplied.

March 10th.—Splint reapplied for the fifth time. Fragments united firmly. Apposition said to be perfect.

May 30th.—Ninety-seven days or about fourteen weeks after the injury, I found this patient in my service (my service having commenced on the 1st of May). The apparatus was removed, and the union was found to be effected by a ligament of one-quarter of an inch in length—slight motion at the knee-joint.

May 15th.—Motion increasing. Discharged.

CASE 28.—Joseph Cox, æt. 50. Slipped on ice and broke the right patella in the effort to recover himself while falling backwards. This occurred in Jan., 1875; he was carried home because he could not stand. Had no pain, and did not suspect the fracture until he reached home and was seated in a chair, when he noticed a space between the fragments of about one and a half inches. It was not tender to the touch. He put them together himself, and made them grate. It was a good deal swollen when he reached home.

For three days he sat with his leg on a chair, or walked about with a cane. Meanwhile it continued to swell. On third day sent for Dr. —, who elevated the leg, and on the following day applied my inclined plane apparatus, supporting the fragments with oblique adhesive strips. I saw the case in consultation about three weeks later.

Apparatus kept on six weeks, when (not by my advice) a plaster-of-Paris splint was applied, and he was allowed to go about with crutches.

Dr. John Nolan was called when the plaster had been on about one week. Meanwhile the foot had become swollen, purple, being threatened with gangrene, and the limb was very painful, so that Mr. Cox had himself cut the splint nearly off to get relief.

Dr. Nolan put him again on my inclined plane, with adhesive strips, and in about three weeks a fibrous union had taken place of about three quarters of an inch in length. Soon after it was removed the fibrous band began to lengthen.

By courtesy of Dr. Nolan I saw the patient again, July 27, 1879. The fracture is transverse through the middle. The fragments are separated one and a half inches; both fragments are a little hypertrophied, but the lower one is the most; it being one-half inch wider than the sound patella. Lower

fragment tilted forwards. There is a strong fibrous union, but on the inner side it has given way some, and allowed the upper fragment to turn upon its axis. He can straighten the leg completely while sitting, and can flex nearly to a right angle. The motions are accompanied with a clicking sensation. He walks with ease, and naturally, but in descending steps he is obliged to put the left foot down first. He bears no more weight upon the sound limb than upon the opposite. He thinks the ligament continued to stretch until about one year ago.

(To be Continued.)

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

Prepared for THE HOSPITAL GAZETTE,
BY
DR. DAVID FRANKLIN, HOUSE PHYSICIAN.

LACERATION OF BRAIN AND SURFACE SKIN.

James Petrie, aged 42 years, admitted Dec. 31st, 1878. This patient was admitted to the male cells early in the morning, as a case of alcoholism, having been sent in from the police-station. When first seen he was conscious, and stated that he had been drinking quite freely for the past three weeks. He complained of nothing but insomnia. The pupils were normal; the pulse was rapid and strong. There was some tremulousness of the hands and tongue. After talking a little he seemed to grow somewhat apathetic and his speech was a little thicker and slower than is ordinarily seen in alcoholic cases. When seen again in the afternoon he was in a semi-comatose condition. It was with difficulty that he could be made to speak, and when he did speak it was difficult to understand him on account of the thickness of his speech. He did not complain of pain, and said that he had received no injury. There was found to be slight paralysis of the right side of the body, with some rigidity, and the face was very slightly paralyzed on the right side; the pupils were irregular, and insensible to light; the pulse was slow, feeble and irregular; the respirations were slow and labored. No external sign of injury could be found after careful examination of the head. He was removed to the ward and given ol. Tiglii gtt. j, which produced a free evacuation from the bowels. Theurine was passed involuntarily; an examination of a specimen showed nothing abnormal. He gradually grew worse, respiration became feeble, and at 12 M. he had œdema of the lungs, which was relieved by cupping. The œdema of the lungs returned the following morning (January 1st) at 8, and was again relieved by cupping; he was ordered half an ounce of whiskey every three hours, and five grains of ammonium carbonate every two hours. The œdema of the lungs, however, continued; there was no change in his condition except increase of the paralysis and stupor, and at 3.40 P.M. he died.

At the autopsy, twenty hours after death, no external sign of injury could be discovered. On stripping the scalp from the cranium, its inner surface, in the region covering the left side of the occipital bone

was found to be ecchymosed. The veins on the surface of the dura mater and particularly on the left side, were very much engorged. There was a large hemorrhage beneath the dura mater covering the left posterior lobe. The anterior lobe of the right side was completely broken up by hemorrhage into its substance. There were also spots of lacerated brain tissue on the inferior surface of the left anterior lobe. There was some laceration of the cerebellum by hemorrhage. On examining the inner surface of the cranium a fissure was found; this began about half an inch above the groove for the longitudinal sinus and about an inch to the left of the median line, and extended down to the body of the sphenoid. There was also a smaller fissure branching from this about an inch below the groove for the longitudinal sinus, and extending downwards and inwards to the margin of the foramen magnum. There was also a slight fissure of the petrous portion of the temporal bone.

From the testimony elicited at the coroner's inquest it is judged that, while intoxicated, he had fallen and struck the back of his head against the sidewalk.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

Service of JAMES H. H. JOHNSON, M.D.

Prepared for THE HOSPITAL GAZETTE.

AN INTERESTING CASE OF APOPLEXY, WITH POST-MORTEM.

W. S. E., æt. 54, widower, razor-strops maker, born in Maryland. Was admitted to the Hospital March 6th, 1878. The patient was carried into the wards in an almost comatose condition. His speech and memory were both very much affected, so that no history of any value could be obtained from him. He seems, however, to have been of a good constitution. He denies venereal disease and does not seem to have been intemperate. Did not remember having had a previous attack of a similar character. He felt well on leaving home, but suddenly became faint in walking along the street, and fell unconscious.

Upon admission the patient is unable to give his name, or any account of himself, but on being questioned, points to his pocket in which were found some letters directed to him. There is found to be almost complete loss of power of his right arm and leg. His face was much flushed and the conjunctival vessels congested; the pupils being contracted.

Examination of the chest negative, but the first sound of the heart is heavy. Pulse irregular, slow and full. Radial arteries are markedly atheromatous. Ordered Rochelle salts, $\frac{3}{4}$ ss.—cold to the head and bromide of potassium,

March 7th.—His speech is very thick, but more intelligible than it was yesterday; about one word in three can be made out. Ordered pil. hydrarg. gr. j every three hours. Tongue much coated.

March 8th.—Rather more dull, if anything, this morning. The blue mass and salts not having op-

erated, an injection was ordered last night. This only operated slightly. This morning ordered ol, tiglli gtt j. This operated quite-freely. Total incontinence of urine, which was opaque, yellow, alkaline,—becomes thick and viscid on heating it and upon the addition of caustic potash; sp. gr. 1017 and contains albumen. No casts were detected upon a rather superficial examination, but it was difficult to determine whether they were present or not owing to the thickness of the sediment.

March 9th.—Tongue still protruded with some difficulty, and covered with a heavy, brownish fur.

March 10th.—There is a tendency to the production of a bed-sore over the right hip, the skin being constantly saturated with urine as he lies on the right side. Transferred to a water-bed and ordered a soap plaster. His bowels were well moved during the night. Temperature 102½°.

March 11th.—Bowels were not moved to-day. Ordered pulv. jalapæ comp. 3j. This not operating he was ordered one drop of croton oil again. Tongue now quite clean.

March 12th.—Bowels were moved but slightly by the croton oil. Ordered an injection. Pulse rather feeble. Temperature 102°.

March 13th.—Temperature ran up this evening to 105½°.

March 14th.—Marked lividity of the face. Hands cold. Temperature 102°. Still takes his nourishment. Died at 5 P.M.

Post Mortem Examination by Dr. Longstreth, made twenty-three hours after death.

Rigor Mortis marked. *Brain.*—There is a fatty tumor in the left frontal region. There is very deep congestion of the right side of the brain posteriorly with considerable subarachnoid effusion. The dura mater is very tightly adherent to the vault of the cranium. The appearances at the base of the brain are about normal. The coats of the larger vessels are a little rigid and patulous. The middle and posterior cerebral arteries are markedly atheromatous. The brain is of moderately good consistence throughout. There is a quantity of fluid blood in the right lateral ventricle. The left ventricle contains a large black clot, becoming partially decolorized. The septum is unusually firm, and on the left side, is stained with blood.

The right side of the brain seems to be normal.

The only point of softening on the left side is in the optic thalamus, where the tissue feels boggy. The under part of this is entirely destroyed and the depth of the tissue is occupied by a large clot. The roof of the ventricle is diseased also. The clot presents all the appearances of a recent apoplectic one.

The *peritoneal cavity* is normal.

The *lungs* meet in the median line. The cartilages of the ribs are ossified. The pleuræ are very dry and adherent. There are old adhesions at the apex on the right side.

The *heart* contains a small amount of blood serum. There is injection of its surface, and evidences of lymph upon it. The right side of the heart is relaxed. The left is moderately contracted. Both sides, in fact, are nearly empty of blood. The heart weighs 18½ oz.

Its orifices are normal. The aorta is dilated. The coronary arteries are rigid. The commencement of the aorta and coronary arteries is atheromatous with the same change in the mitral valves and heads of the chordæ tendinæ and papillary muscles. The left ventricle is about 1½ inches in thickness at the base; at the apex it is thin. The muscle is rather flabby but not very easily torn.

The *lungs* are generally crepitant throughout, much congested and softened posteriorly and exude bloody, frothy mucus.

The *spleen* is small, adherent and full of infarctions. Has a nodular feeling. There are at least a dozen of these infarctions; some of which are dark and others are becoming decolorized.

The *left kidney* is small and slightly irregular and flabby. Its cortex is very much diminished. Its capsule thickened and adherent. Tearing the organ leaves a slightly granular surface on which the stellate veins are very prominent. Weight 5 oz.

The *appendix vermiformis* is bound down and concealed by old inflammatory adhesions.

The *liver* weighs 3 lbs., 8 oz. Its outline is regular. There are a few adhesions upon its upper surface. Its tissue is slightly congested, but otherwise normal.

Gall bladder contains an abundance of dark bile.

TRANSLATIONS.

GLEANINGS FROM OUR FRENCH AND GERMAN EXCHANGES.

BY
JNO. A. WYETH, M.D.

EPILEPTIFORM NEURALGIA CURED BY STRETCHING THE TRIFACIAL NERVE.—STEWART.

Patient, male, æt. 70, had severe pains of neuralgic kind in right side of face, at frequent intervals during seventeen years. Of late the suffering became more intense, and was especially painful toward night-time. Spasmodic action of the muscles of the right side of the face was observed. As nine or ten teeth were extracted without relief, and all medication being of no avail, the infraorbital branch of the fifth nerve was exposed under carbolic spray, and stretched. The neuralgia ceased for one month after the operation, and then returned. The third division of the fifth was then exposed and stretched, and there has been no recurrence of the pain to the present date (5 months).—*Centralblatt für Chirurgie*, p. 534, Aug. 9, 1879.

THE PLASTER-OF-PARIS TREATMENT IN POTT'S DISEASE, AT THE SURGICAL CLINIC AT BONN.—MADILUNG.

Prof. Busch reports thirty-eight cases treated by neck and axilla suspension and the application of plaster. B. uses a flannel-cloth applied tightly and neatly around the body instead of the knit shirt, as recommended by Dr. Sayre. The flannel is cut from a paper pattern, which fits the body snugly. The outer side is moistened with the plaster-mixture, and applied tightly, and over this a second and third flannel layer, soaked in plaster, until a firm cuirass is secured.

Attempts to use paste bandages, with or without stays of gutta-percha or other stiff material, were not satisfactory. *Cocking's* Poroplastic-Felt Jacket yielded good results in cases of scoliosis, or not very severe forms of caries of the bodies. B. says the material is a misnomer, since it is not in the least "porous" after it is applied. He furthermore finds it best to practice his patients in hanging, at short intervals, for several days previous to the application, in order to accustom them to the prolonged suspension. No anæsthetic is used, as Langenbeck employs it in such cases.

In caries of the bodies of the vertebrae, and in kyphosis, he finds it necessary to leave the dressing on longer than in scoliosis. The longest time any one jacket was worn was 4½ months, in a case of caries of the lower dorsal region in a child three years old. In two instances general constitutional disturbance followed the application of the jacket. In eighteen cases he used the Sayre-Jury Mast. Abscesses formed in four of these. [The value of this article would be enhanced if Prof. Busch would publish his definite results.—W.]

In the *Göttingen Clinic*, Würzburg has also employed the plaster-jacket. He concludes that better results are obtained in scoliosis than in kyphosis.—*Centralblatt für Chir.*, Aug. 2, 1879, pp. 511-12.

TRIPLE AMPUTATION—RECOVERY—EISELENC.

May 27, 1878, an officer in the employ of the Western Railway Co., at Brest, while superintending the switching of some cars, fell from the foremost of three cars, dislocated the left elbow while the locomotive and three cars passed over his legs. He was immediately carried to the hospital in a state of syncope. The right thigh was held only by a few shreds of skin, the bone being crushed through and separated just above the knee. The femora were divided and closed by coagulum, which had instantly arrested hemorrhage. The left foot and ankle was a crushed and shapeless mass.

The right thigh was removed by immediate amputation. The next day at 8 A. M. (22 hours after the injury), the left leg was amputated. Gangrene having supervened in the left fore-arm, this was also amputated seventeen days after the injury. The patient sustained the shock of the accident and operations with an amazing courage and recovered, being now able to get about well, thanks to mechanical ingenuity.

Mr. Larrey related the case of an old soldier at the *L'Hôtel des Invalides* who had survived many years, the simultaneous loss of both arms and legs from wounds received in battle. He had also seen a child who had survived the amputation of both legs and arms; from injury received while asleep on a railroad track, the train passing over him.—*Gaz. des Hop.*, Aug. 7, 1879, p. 725.

ENTEROTOMY—M. MULLER.

M. reports three cases, two of which were successful, in which enterotomy was performed. He lays especial stress upon the following point:

The peritoneum should be carefully and closely stitched to the edges of the skin in the abdominal wound in order to prevent fecal or septic infiltration. This should be done before the intestine is fastened to the edges of the wound. He styles this, *hermetically sealing the wound*.—*Centralblatt für Chir.*, Aug. 2, 1879, p. 512.

REMOVAL OF THE THYROID GLAND—RECOVERY.—SAVOSTITZKY.

Patient female æt. 44, suffered for last fifteen years from enlargement of right half of this gland which was finally as large as the head of a six months old child. The removal was effected with the finger and scalpel handle. Superior and inferior thyroid arteries were tied and the thyroid isthmus—High fever on twelfth day—Recovery good.

Stukowenkoff reports a similar case in the removal of which forty-seven catgut ligatures were used. Operation lasted five hours. Both sides of the gland were removed. Hemorrhage was profuse—Recovered.—*Ibid.*

SPONTANEOUS CLOSURE OF A PERFORATING WOUND OF THE BLADDER—MULBERGER.

A stone breaker, fell upon a sharp instrument which entered the rectum and passed into the bladder. Patient passed his urine by the wound and rectum for three days and by the urethra on and after the fourth day—Recovery rapid.—*Ibid.*

SYPHILIS OF THE PLACENTA—GUMMATA—INFANT BORN AT TERM AND IN GOOD HEALTH.

M. Herveux, at the meeting of the French Academy of Medicine, Aug. 5, 1879, reports this case:—

The patient had borne one child at 20 years of age, and in a subsequent pregnancy, and in her 21st year had contracted syphilis about the sixth month, for which she was

treated by mercurials. All the usual symptoms of syphilis developed in their order, and the infant was born at term with no signs of the disease until the seventeenth day, when mucous patches were observed in the axillæ. Both mother and child were submitted to a mercurial course, and were under this treatment when they left the hospital. The placenta weighed 17 ounces, was about circular in form, and showed upon its surface a number of elevated yellowish-white spots. Sections of these elevations showed that they corresponded to firm caseous nodules situated on the uterine surface of the placenta, the other extremities losing themselves in the deeper structures of the organ. Numerous smaller nodules were scattered throughout the placenta, the intervening tissue being normal. Upon microscopic examination, these nodules were identified as syphilitic tumors, or gummata.

In the discussion which followed, M. Tarnier remarked that he had examined at least fifty placenta of syphilitic women and had never noticed a lesion analogous to the one presented by Herveux. Moreover, he had seen in the non-syphilitic placenta nodules like those in the case under discussion.—*Gaz. des Hop.*, p. 726 Aug. 7, 1879.

ABOUT BOOKS.

Animal and Vegetable Parasites of the Human Skin and Hair; by B. Joy Jeffries, A.M., M.D. 12mo., pp. 100. Boston: Alexander Moore.

The further any one who has the patience to read this work of over one hundred pages gets into it, the more he wonders as to what could have induced the author to write it; except the cacoethes scribendi. It could hardly have been intended for the general public, as it abounds so much in technical terms as to make it almost incomprehensible to them; nor could it have been meant for a scientific work, as it lacks all systematic arrangement, is full of useless repetition, and devotes whole pages to descriptions of rare and unimportant diseases, while it dismisses subjects of importance with scarcely more than mention. Original matter the book contains none; the facts are all either such as are universally known or else are stated on the authority of others; indeed there is nothing in this work that may not be found in any good treatise on the Practice of Medicine, or may be studied to much more advantage in any systematic work on diseases of the skin. The style reminds us, in its puerility, of our old friend Peter Pindar, but without the latter's clearness and simplicity. In many places it cannot even be said to be written in good English, as witness these sentences: "the female, as it progresses, lays its behind *her* in the burrow (p. 45); "Remember, an ounce of preventive is worth a pound of cure, and that preventive is simply plenty of soap, and *lots* of hot water." The language is poor, the style is poor, the matter is poor, in fact, the only good thing about the book seems to be the paper.

Pocket Therapeutics and Dose-Book. By Morse Stewart, Jr., B.A., M.D. Second Edition. Detroit, Michigan: Geo. D. Stewart.

This little work may almost be styled a compendium of materia medica, therapeutics, and the practice of medicine. From cover to cover it is full of condensed and valuable information; and after reading it, one wonders how the author has contrived to enclose so much solid matter within such a small compass. It is eminently and thoroughly practical, giving the names, doses, preparations and uses of medicine, both those in the pharmacopœia and others not there met with; short descriptions of the most common diseases and the appropriate remedies; formulas and doses of hypodermic medication, of doses for inhalation, nasal douches, eye washes, etc.; tables of solubility, of incompatibles and antagonists, of poisons and their antidotes, and, in brief, of just such information as one requires constantly, and often at a moment's notice. It will be found equally useful to the student and to the practitioner; to the former as furnishing a digest of many things which are usually learned in many ways, and hence are not systematized and arranged, and to the latter as enabling him, in a short time, to review and recall much which, though once known, may, in the hurry and preoccupation of practice, have been forgotten.

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NEW YORK, SATURDAY, SEPTEMBER 6TH, 1879.

MEDICAL JOURNALISM.

Advancing thought has given us the present civilization. What now is our boasted station, has been building since creation, and man's intelligence has been the only material employed in its construction. Slowly did the work move at first, only increasing in rapidity as man found himself able to aid and be aided by others in his efforts. Single effort could and did accomplish slowly, but when each could build, being assisted by the experience and thought of all others, the work moved rapidly on. Since journalism had its birth, has community of thought been established, and through that, civilization has not only been firmly rooted in reason, but each day has developed a surprising advance for it. To-day we smile at the simple notions of the past. Journalism is the instrument, which in the hands of the wise from every land and clime, has enabled man to build so quickly and so well.

Journalism is a necessity to civilization. Although it came from progress, it has fed and nurtured progress since, and can cease to exist, only when progress is no more and civilization totters. Its mission is being made more manifest, and its necessity also. We are more willing than our progenitors were to acknowledge our ignorance, and anticipate as inevitable the criticism of the future upon our absurd boasts. We welcome and encourage journalism as the great requisite for present and future progress. As civilization is of many parts, so must journalism divide itself, and the special fields will need

special and exclusive consideration. Good soil, selected seed, thoughtful and continual care for each department, develop perfection in the plant, and by no other agency can perfection be assured. Nature tolerates no miracle in her workshop, wastes no time dallying with chance. The care of suffering humanity is a field sufficiently important and intricate to be classed as deserving of special effort; the profession of medicine needs all the advantageous surroundings possible. That branch of journalism which promotes its interests must be as pure, as energetic and as abundant in skill as the profession itself is honorable and exalted. The profession is so markedly and fully identified with the best interests of civilization, that its reflection must be truly and perfectly mirrored; its journalism must be of the best order. The printed pages which suggest modes of treatment for the sick and dying, which assist to allay or intensify pain and misery, must be carefully prepared. Few of the special fields reach this or equally high ground; therefore, in it, a responsibility is involved that is significant.

The design of medical journalism embraces the publication of professional news, the discussion of all pertinent questions, the upholding of right and uncompromising denunciation of wrong, whatever may be its position or support. This design is accomplished by devoting a portion of the journal to the clinical and other lectures of the most distinguished teachers of medicine; these are the lessons of experience, the droppings of wisdom. The fresh, crisp and expressive thoughts, words and illustrations of these lectures coming from a speaker, whose practice at the moment suggests the theme, make them more instructive and impressive than staid standard books, however full of experience and precise definitions. Each has its mission, both are commendable, but the lecture strikes forcibly, even if less labored in style. The lectures most appropriate, richest in thought, with the author's amplification or contraction must be chosen. It is a peculiarity with the medical profession, that not one of its members can hide his light under a bushel; his obligation to relieve suffering knows no bounds, therefore his thoughts and deeds, if balm bearing, belong to his brethren. Let this be THE GAZETTE's response to the very gratuitous charge of discourtesy made by a Western contemporary in referring to our publication of several lectures, whose author peremptorily forbade notes being taken. We recognize no individual proprietary claims inside the profession. Our ethics forbid exclusiveness and Patent Rightism. The great Soul Physician went about, freely offering the Word, and the great in medicine emulate His example.

Hardly less important is the department of original communications. This is the field of new departures in medicine, and ranges from naked hypothesis to the experimental application of established principles in new combination. This is the only semblance of a Patent Office in medicine, as discovery

entirely occupies it. Between puncturing bubbles of enthusiasm, lopping off dead and interfering branches, and praising good effort, the manager has an opportunity of proving his wisdom, caution and courage. *Suaviter in modo, fortiter in re* must be his practice. He must positively decline to publish the much cherished fancies of self-esteemed authors, while encouraging them to perfect their work, fondly hoping that time may convince them of their folly; must smilingly assure rejected authors that their efforts contain new and good points, without adding that the new points are not good, and the good not new.

Brevity and perspicuity are the charms for news items, domestic or foreign, since life is short and the mind can weary with details of the past.

In its editorial department a medical journal becomes a part of humanity—sees, feels, thinks and knows as men do, therefore must speak. Beholding error, criticism must be spoken; feeling that negligence prevails, alarm must be sounded; thinking that progress is demanded, cheering words must be uttered, but knowing that the profession is honest and devoted, a pæan must be attuned.

Such, in brief, is professional medical journalism, as we have striven to embody in THE HOSPITAL GAZETTE. That ideal has ever been before us, and we have labored to realize it. In whatever of excellence we have come short, not intention, nor energy, must be held accountable, but human fallibility. Experience and an approving profession have given us confidence to believe that we are approaching nearer that standard.

Medical journalism has some noble representatives, and by their hands has the profession been lifted into a place of greatest honor. It is cursed by some selfish intruders that live for gain alone. These latter have their special purpose to effect, and only as professional interests accord with that purpose, can good be done. A trammelled journal is a foe to progress, in disguise. Its every word and letter must be true for truth's and the profession's sake alone, or the journal spreads curses even along with its lip service blessings.

SURGEON-GENERAL WM. A. HAMMOND.

Poetry decreed "*Nil nisi bonum de mortuis.*" The American Congress echoed the same sentiment, when it gave to Surgeon-General Hammond the privilege of proving himself innocent of charges, of which, at a former time, when force was rampant and reason well-nigh dethroned, he was pronounced guilty. The dead has been spared, yet Justice, that decrees "*Nil nisi verum de vivis,*" has, in her quiet yet certain way, laid bare the rotten supports of those charges,

and the Surgeon-General is honorably acquitted. The truth, which the force of arms struck down in 1864, which the blaze of military glory kept down since, has risen again and General Hammond has been relieved from the burden of overhanging accusations.

Congress has adjudged the case, and found him innocent. The Secretary of War reviewed the findings and recommendations of Congress, approved and respectfully forwarded them to the President. The President has ordered his reinstatement.

It gladdens our hearts to witness triumphs of justice, such as this. Overpowered and almost crushed by slander born of jealousy, urged by an iron will, fifteen years ago, Surgeon-General Wm. A. Hammond accepted the situation of temporary defeat, realizing that the rule of passion ran too high for him to seek protection, much less redress,—hoping, however, that reason would resume sway as time progressed and war powers would be less omnipotent. His forethought at such a troubled hour showed his wisdom. Time and Reason have broken the fetters which Force and Envy forged.

Surgeon-General Hammond, as is the fate of all truly great men, was accused. He has proven himself innocent.

PHOTOGRAPHY RECORDING MEDICAL TREATMENT.

The profession is beginning to realize the great value of photography as an aid in recording the prominent points in the history of instructive cases. Since the introduction of this art at Bellevue Hospital, New York, more than ten years ago, for this purpose, conveniences have suggested themselves and have been procured, enabling the artist to obtain views promptly and opportunely, illustrating such appearances as are desired to be preserved. The case books of the hospital are no longer dependent for their accuracy or fulness of detail upon the overworked house physicians and surgeons, but are made reliable by series of pictures, with explanatory notes accompanying them. The pictures are especially instructive. This branch of the art has not been sufficiently encouraged, and there is opportunity for some Medical College to earn an enviable reputation by making special effort to utilize it for the benefit of students. It will prove a remunerative investment.

MUSHROOM POISONING.

The *Moniteur Scientifique* of June contains an article discussing the poisonous attributes of varieties of mushrooms; the most dangerous result, as stated by M. Palmer is from the action of the tasteless,

odorless and imperceptible alkaloid *amanitin*, which is found in great abundance in some species. Though so thoroughly hidden from some of the senses, it carries its deadly influence to other varieties, and all the genus in the locality are infected and are unfitted for food purposes. The poison fills the surrounding air, and is the cause of deaths, which for a time seem beyond explanation. Mushroom eating is fastidiously fashionable, because so venturesome and that the plants are so expensive. They develop sulphuretted hydrogen, which fact should not be considered a commendation. *Amanitin*, being such a powerful alkaloid, deserves the attention of therapeutists and toxicologists that its medicinal properties may be determined, and its antidote discovered.

AN ADDITIONAL DUTY.

A coroner's jury of Baltimore, Md., gave as a verdict, "accidental death from an overdose of pulverized opium," and signalized the occasion by recommending that physicians in prescribing such medicines should direct the druggist to label the package "poison." This suggestion would have been more valuable if it had been extended, and they had further recommended that the physician supervise the purchase, the care and the administering of the drug. Then the physician would act as druggist's scape-goat, as house-keeper, and as nurse, occupying a little of his leisure in these harmless pursuits. The true purpose might be more certainly effected by having competent druggists, and putting them under penalty for their neglect.

SELECTIONS FROM JOURNALS.

THE URINE IN YELLOW FEVER—A CLINICAL STUDY,

L. W. HOLLAND, M.D., of Louisville, Kentucky.

It is the opinion of many besides Dr. A. Flint that "further study of the urine in yellow fever by means of chemical and microscopical examination is a desideratum." Ballot, Blair, and Lawson, have asserted that the least doubtful sign of it is derived from an examination of the urine. These considerations moved me to direct particular attention to this secretion by the usual methods of clinical analysis, when the opportunity was afforded in the outbreak at Louisville, Kentucky, during September and October, 1878. Drawings of the sediments and brief records were made in the study of twenty-five cases occurring in the infected district and presenting symptoms more or less suspicious. Nearly all of these would have been grouped in the family of fevers called yellow had they appeared in a region where the disease was expected or where it had ever held undisputed sway. Inasmuch as this was the first time indigenous yellow fever had appeared in Louisville, and its identity was considered by some not indubitable, the specific name is applied to fourteen out of the twenty-five, these being of the malignant grade and such as are everywhere recognized as the disease in question when it appears in the epidemic form. They presented these symptoms in common; ushered in by a chill; there were headache, backache, and soreness of the limbs, followed by a fever ranging

in temperature from 102° F. to 105° F.; the epigastrium was tender or painful, and stomach irritable; color of the skin at some time bright yellow; excessive vomiting, sooner or later black vomit appearing. The urine was scanty or suppressed and albuminous.

In most of them the eyes were congested and ferrety; the odor of the person slightly nauseous and ammoniacal. There were no regular remissions of the fever, which was in some cases variable until death, in others there was an apyrexia on the fourth day; and in all, though the temperature was elevated, after the reactive stage the pulse was peculiarly slow and compressible.

The early cases having been cinchonized without benefit, the later ones were not so treated. All but two of these severe cases were fatal between the fourth and the seventh day.

Some of them I saw in consultation with Dr. Cox, for the reports of others I am indebted to Drs. D. W. Yandell, Cox, Scott, Manly, and Palmer. The accompanying engravings give a faithful reproduction of the characteristic objects as seen with a power of 200 diameters.

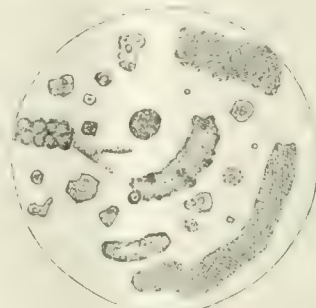


FIG. 1.

Fig. 1 represents the deposit from the urine of a white boy, S—, aged fourteen. It was passed through the catheter, after deep pressure above the pubis, on the fourth day; death occurred in delirium on the fifth. It contained diffused granular matter and renal tube casts, highly, moderately, and slightly granular. Some have epithelium embedded, and in various parts of the field are single fat cells from the urinary passages, which are studded with small fat globules. He had complained of malaise and frequent urination for several weeks. This may account for the fatty degeneration which was presented in one other subject who had been "on a beer spree" for a week before the initial symptoms. The urine was acid, lemon yellow, bile pigment, and one-half albuminous.



FIG. 2.

This is the appearance of a copious brownish deposit from S. J—, white male, aged thirty-five, passed freely on the fourth day of fever. Death, preceded by hemorrhages from various parts, ensued three days later at the Yellow Fever Hospital, to which in the meantime he had been conveyed. It was pronounced by the physician in charge as marked a case in every detail as any that had been received as refugees from Memphis, Tennessee. The objects seen are: at the top a highly granular tube cast, made probably of degenerated renal epithelium; such cylinders abound, though all have not a sharp fracture and squared ends. At the bottom is a cast of a convoluted tube, in one part large enough to show that it was probably made of the disorganized cellular lining, and diminishing in size to the calibre of the tube when intact. These interesting forms were quite common in the grave cases. The clear

portion is probably the mucoid matter of Bile. In the middle of the field is a patch of tessellated epithelium from the bladder, and some scattered cells with strongly marked nuclei. There is a group of spindle-shaped cells probably from the pelvis of the kidney. On the right is the "compound granule corpuscle," found in the other cases also, wherever the granular cast was to be seen.

This figure is a type of the deposit seen on and after the fourth day in the following cases: M—, aged forty-eight, white male; V—, aged two-and-a-half white male; G—, aged thirty, white male; C—, aged twenty-six, white female; mulatto boy, aged twelve. M N—, aged thirty, white male; C—, aged forty-five, white male; C—, aged eighteen, white male; L—, aged twenty-five, white female; M—, aged thirty-two, white male—all of whom died. Only one case presenting these with the other grave signs survived. This was a negro boy, P—, aged eighteen, whose urine was of dark red color from hæmaturia, almost solid when the albumen was coagulated, and in which was found bile pigment. This, the only case of hæmaturia, recovered, and is to-day in fine health, which goes a little way to confirm the observation of Dr. Blair, that bloody urine was a favorable indication.

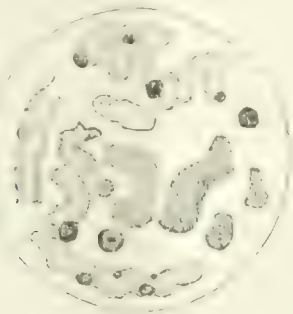


FIG. 3.

The deposit from a specimen voided without difficulty on the eleventh day after the primary chill, by F—, aged forty-five, white male, of robust frame, who slowly regained and now retains his wonted health. He resides at Tenth and Dumesnil streets, a neighborhood that furnished no other cases to this report, at least half a mile from the infected district. His occupation as watchman in the freight depot of the Louisville and Northern and Great Southern railways brought him in the early morning within the range of a locality that proved so fatal to many. I saw him on the twelfth day in consultation with Dr. John E. Crowe; he then exhibited some restlessness, slight suffusion, and yellowness of the eyes; temperature normal, but pulse sixty-six and rather feeble; appetite and digestion good.

He had been seized with violent headache and pains in his limbs; then there was a chill and febrile movement that lasted about two days. His temperature was normal after the reaction, but his pulse compressible and sometimes only sixty to the minute. In the beginning his eyes were so red that his wife concluded he had caught cold in them.

Early in the attack his epigastrium became tender and his stomach very irritable; for several days he continued vomiting bile, but no blood. Towards the close of the first week, hemorrhage from the gums set in; and, despite treatment, lasted nearly one week. He was cinchonized early. His urine was not examined until the eleventh day, when it was found acid, deep-red yellow, specific gravity 1.024, quantity normal, and one-fourth albuminous. Bile pigment was present, and a heavy lateritious deposit fell. Under the microscope amorphous urates were so abundant as to obscure other objects; gentle heat cleared them away, and there was revealed the field seen in Fig. 3: tube casts, granular, epithelial, and hyaline, with renal and vesical epithelium stained yellow. The worm-like mucoid casts were of a faint yellow tinge, or they would have been difficult to detect. I am inclined to call this yellow fever of a variety different only in degree from the unquestionable type before adopted as a safe basis of classification. It is a significant fact that M—, above named as dying from the typical form, was a night clerk in the same dépôt with the last described person. Both resided in parts widely separated from the dépôt, and had nothing in common but employment there during the night or early morning.

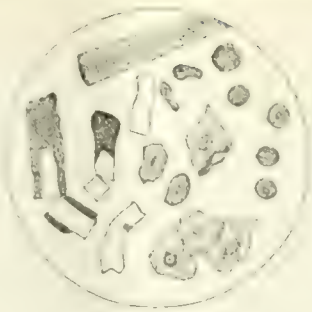


FIG. 4.

FIG. 4.—Objects seen in a urine deposit from the urine of Mrs. V—, aged thirty, pregnant at the fifth month. It was voided on the fourth day after seizure; she died three days later. The urine was acid, scanty, bright-yellow, and one-third albuminous. Besides epithelium from the vagina, urinary passages, and kidney, there can be seen small waxy casts with a sharp fracture, some imbedded in granular matter, and one containing granular matter in its axis.

This was the only case which showed the waxy cast unmistakably. All the objects were stained yellow.

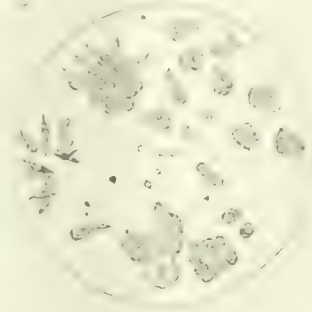


FIG. 5.

FIG. 5 is the appearance of the field on the third day in several cases examined at that time before the appearance of albuminuria. The objects are squamous, round and transitional epithelium from the bladder, and spindle-shaped cells probably from pelvis of kidney. Sometimes they were found in patches that covered half the entire field. They were found sparingly in some cases of a mild form in which albuminuria was at no time present.



FIG. 6.

FIG. 6.—Deposited from the urine of M. K—, aged forty-five, who lived in the centre of the infected district, and whose history, as obtained from Dr. Crowe, is as follows: He was attacked October 10th with chill and headache, the temperature rose to 104°, and soon fell to 99° F. The general run of his pulse was sixty to the minute; his stomach was irritable, vomiting bile. His skin was yellow and flushed. He was cinchonized, and became convalescent by October 22. He was well before the seizure, and it left no sequel.

The urine of the fourth day was alkaline, yellow from bile pigment, not albuminous, and gave a light deposit, with the

showing the typical characters as seen in the figure. Bladder epithelium singly and in patches; groups of leucine spheres of a yellow color, and well-defined outline with concentric markings, shown on the left and in the centre; tyrosine needles in stars and sheaves, with abundant octohedra of calcium oxalate. The specimen from which the drawing was made was mounted with a ring of cement after keeping it a few days under cover without change, and is now in my cabinet as perfect as it was six months ago. The cells and other organic matters owe their preservation to the biliary principles. Granting that the epidemic was one of yellow fever, as shown by the previously-cited cases, the collateral evidence makes the conclusion inevitable that this last one occurring at the same time and in their midst is the ephemeral or mild form of the same disease. Leucine was recognized in imperfect forms where the urine had dried on the glass, in some other cases when biliary matter was abundant. Here it and its congener tyrosine are present beyond question.—*The London Practitioner*, July, 1879.

TRACTION OF THE CORACOID PROCESS.

On the night of the 5th of May, ult., Dr. F., of this city, æt. 27, called at my office, informing me that there was "something wrong" with his shoulder. He stated that upon getting out of bed an hour before, he had stumbled and fallen to the floor, striking his shoulder against something, which proved to be the edge of a door standing ajar. The pain was so excessive as to render him unconscious for some little time.

Upon careful examination of the part, I could at the outset detect objective sign of injury. There was inability to place the hand upon the head, and extreme tenderness on pressure over a limited space just inside the acromial end of the clavicle and just below it. No crepitus or deformity was at this time observable. Accordingly I prescribed a hypnotic (morphine acetate $\frac{1}{2}$ gr.), and the application of a towel wrung out of hot water, on general principles. No opinion as to the lesion was expressed.

Next morning I called on the doctor, and at once noticed tumescence, circumscribed, at the injured spot, with considerable impairment of function, corresponding to the action of the pectoralis minor and coraco-brachial muscles. It will be remembered that the former is inserted into this process, and also that the conjoined tendon of the latter and of the short head of the biceps arise from its outer border. Crepitation was now quite perceptible. This was doubtless more from rupture of the trapezoid ligament than the separation of the fragments of bone. Indeed, when the relation of this ligament and also of the conoid are considered, it seems to me that this fracture implies the necessary rupture of both of them.

When we observe that the coracoid process is epiphyseal, and that complete osseous union does not occur till the twenty-fifth year or even later, this case may be viewed more as a separation than a fracture, perhaps. Hamilton, however, considers such separations under the nomenclature of fractures.

The exceeding infrequency of this injury is obvious from a consideration of the anatomical reasons. Nothing but direct violence of a special kind can cause it. I may add, and it is to be hoped, unassumingly, nothing but direct and close observation will detect it. Erichsen says only about a dozen cases of fractured coracoid are recorded. Mr. Lizars denies having seen a well authenticated case. Bransby Cooper and Dr. R. Mussey have each seen one. Hamilton has seen but one.

In conclusion, I would state that I had the honor to present this unique example, a few days after it occurred, before the Rockford Medical Association, and their opinion entirely concurred with my own as to the diagnosis. Hence the confidence with which I venture to assert the diagnosis.

The patient, it may be added, has but little inconvenience at present, no treatment further than elevation of the forearm upon the chest having been employed.—EDWARD C. HUSE, M.D.—*In Chicago Med. Journal and Examiner*, Aug., 1879.

DISEASE CAUSED BY CYSTICERCI IN BRAIN MISTAKEN DURING LIFE FOR HYDROPHOBIA.

PHOBIA.

BY

F. M. DOLAN, F.R.C.S.E.

In my report on "rabies, or hydrophobia," * I pointed out many possible sources of mistakes in diagnosis, and insisted on the necessity of an accurate one, in order that our lists of deaths from hydrophobia might not be swelled by certifying a wrong cause of death. I endeavored to illustrate this by facts. The following history confirms me in my opinions:—

1st. That we should be very careful before pronouncing our diagnosis—hydrophobia.

2nd. That there should be a post-mortem examination, made by experienced pathologists, in every reputed case of death from hydrophobia.

It also appears to me to confirm the views of our modern pathologists as to the portion of the brain involved in *Rabies Vera*.

It is taken from *La France Medicale*, January 8, 1879; by which paper it was copied from the Italian journal, *Gaz. delle Clin. et Gaz. Med. Ital. Prov. Ven.* For further verification it would be desirable to consult the original paper, as I found in reference to a reputed case of recovery from rabies that the experience of Dr. Offenberg had gone the round of some foreign journals, that his name was omitted, and that a Dr. Polli substituted, and that Polli's name was published in some Italian and French journals as the medical man who effected the cure.

Dr. Offenberg wrote to me to correct the error, and after a correspondence with Dr. Fort, the obliging editor of *Le Paris Medical*, I traced the mistake to the original journal in which Offenberg's paper appeared.

Polli's case had, however, been circulated in the *Paris Medical*, *Journal d'Oculistique et de Chirurgie*, du D. Fano, *Paris*, *Journal de Liège*, *Gaz. Med. Ital. Prov. Ven.*, *Lancet*, *Medical Times and Gazette*, *Medical Press and Circular*, and probably other journals. The original reference was to *Allg. Med. Berlin Centr. Zeitung*, No. II., January, 1876. Offenberg sent me the paper. There was no mention of Polli's name; the facts were identically the same.

Mistakes thus arise, and the vitality of error is so great that probably a large number believe there were two cases of recovery from rabies by the use of curara—one reported by Offenberg, the other by Polli. This instance proves the necessity of great care in accepting facts in connection with the literature of rabies.

From *La France Medicale* we learn that a woman, aged fifty-two years, was bitten on the face by a dog, about whose state of health or disease there was no question. Nine months after this bite the woman was admitted to hospital. For three days deglutition was impossible, and when she made attempts to swallow she was seized with very violent and painful cramps. She refused aliments, did not reply to questions addressed to her, held her head low and inclined to the right, whilst her eyes were half closed, and a white sticky saliva flowed from her mouth, which was drawn at the angles. Her physiognomy expressed stupor. The action of blowing on the face suddenly produced reflex action under the form of hiccup and sobbing. Her voice only produced inarticulate sounds; inspiration was frequently interrupted; and the action of showing the tongue, as well as attempts at drinking, provoked hiccup. Some drops of liquid introduced into the mouth were immediately rejected, mixed with a large quantity of saliva. These phenomena showed themselves spontaneously, or under the influence of external causes, and gave the patient an air of continual dread. Pulse 140; heart-sounds normal; pupils dilated and very impressionable to light. Progressive aggravation of symptoms, vomiting, insensibility, death. This affection had been diagnosed as a case of rabies of canine origin, but at the autopsy there was found, at the base of the brain, a pyriform cyst of the size of a large nut, which penetrated by some lamellæ into the fissure of Sylvius. The cerebral substance, softened and injected round the tumor, was depressed to give way to it.

This tumor was full of cysticerci. The disturbed complications which marked the last days of this woman may be explained by the rapid increase of the tumor, and the movements of the contained cysticerci.—*Practitioner*, Aug., 1879.

* Published, 8vo., Baillière & Co., London.

RUPTURE OF THE NON-PREGNANT UTERUS.

R. H. SABIN, WEST TROY, N. Y.

August 26, 1878. Mrs. R., aged forty-six years, the mother of eight children, the youngest near four years old, called at my office, and complained of sickness at the stomach and occasional vomiting; no pain; bowels regular. She asked me if I thought she was pregnant; said she never felt like that when in that way; had been regular up to within three months; had no leucorrheal discharge; had never had any uterine disorder. Gave her saccharated pepsine, and told her to call again.

She came on the 28th; said she was no better; also on the 30th, with the same remark. I prescribed again, and told her I would call at her house in two days. Called and found her no better. I told her I thought she had uterine irritation, and that the vomiting was sympathetic, and that I would call in two days and make an examination. On the morning I was to call she sent me word not to call, as she wished to call some one else.

I heard no more of the case till the 4th of October. Her husband called about 5 o'clock A. M., and wished me to see his wife as soon as possible, as she was flowing profusely. On arriving at her bedside, I found her faint and almost pulseless from loss of blood. Gave her Squibb's fluid extract of ergot, removed the clots, which I examined closely, but found no fœtus or placenta. Saturated cotton with tannin, and applied to the mouth of the uterus, which seemed to check the flow for a while.

When I called again I learned that she had been under the care of a worthy physician of Troy, who was sent for before I was, who very fortunately arrived soon after I did. We found her still flowing, though not so freely as at my former visit.

After removing the clots and again placing cotton with tannin next the uterus, we plugged the vagina full of strips of muslin wet with cold water. This checked the flowing; continued the ergot, and gave brandy freely.

Sunday morning I was called about 5 o'clock; found her in great pain across the lower part of the abdomen. Gave a hypodermic injection of morphine; removed the tampon, and drew the urine, which relieved her somewhat. Met the attending physician at 11 o'clock A. M., when we found her past all help. She died about 3 o'clock that day.

Post-mortem twenty-five Hours after Death.—Body well preserved; skin very pale; the cuticle gives away on a slight pressure of the finger; abdomen distended with gas; uterus about as large as it would be at four months in pregnancy, with a rupture across the fundus from right to left, opening into the peritoneal cavity. There was no blood in the peritoneal cavity, and but little pus. All the other organs were normal.

I learn from the attending physician the following facts:

Mrs. R. called on him in the early part of September; complained of sickness at the stomach and vomiting. He diagnosed chronic gastritis. Saw her several times. One day when he called he found her with bearing-down pains much like labor pains. On making an examination, he found projecting outside the vulva a polypus the size of a small fig hanging from the uterus. He took his sound to examine it, and in passing it around the pedicle it passed and fell from her. There was no hemorrhage; the uterus seemed to require no treatment, and was left alone. She improved so that she was able to attend to her household duties, till on the morning when I was called as detailed above.

Now, the question naturally arises, what ruptured the uterus? and when was it ruptured?

In answer to the first question, I think the uterus was ruptured by the gas which formed in it after the tampon was introduced, and that it was ruptured on Saturday night about 12 o'clock, when she was taken with pain as described; for, when I arrived at her bedside about 5 o'clock, she said, "I feel as though I am all giving way across the lower part of the abdomen."

Again, what caused the flowing?

I think, when the polypus came away, it forced its way down taking the lining membrane with it, leaving the walls thin, and an artery in an exposed condition, and that the inflammation of the muscular walls caused the artery to give way, and allowed her to bleed almost to death.—*New York Med. Journal*, Aug. 1879.

FORMULARY.

LEITCH'S TREATMENT OF LEUKŒMIA BY VINYLATE OF SODA.

R. Sodæ Vincoat puri..... ʒ i
Aque destillat.....
Aque menth. ppt..... ʒ i
M. Syrup cort. aurantii..... ʒ i

For an infant under one year old, one-half tablespoonful every hour.

Good results are reported.

LEXATIVES FOR HABITUAL USE IN UTERINE DISORDERS.

R. Ext. colocynth. comp..... gr. ij
Ext. belladonnæ..... gr. ʒ
Ext. gentianæ..... gr. ʒ
M. Ol. cam..... gr. ss
Et ft. pil. No. j.

To be taken at bedtime.

The pulvis glycyrrhizæ comp. of the Prussian Pharmacopœia is another good laxative. I have kept patients upon it for months, and always with benefit. The formula for it is as follows:

R. Pulv. glycyrrh. rad..... ʒ i
Pulv. semina..... ʒ i
Sulphuris sublim..... ʒ i
M. Pulv. feniculi..... ʒ i
Sacchar purif..... ʒ ss

Sig. One teaspoonful in half a cupful of water at bedtime.
WM. GOODELL, M.D., Phila.

The following tonic pills are much prescribed at the Gynecological clinic of the Hospital of the University of Pennsylvania:

R. Acid. Arseniosi..... ʒ i
Strychninæ sulph..... ʒ i
Ext. belladonnæ..... gr. ʒ
Cinchoninæ sulph..... gr. ʒ
M. Pil. ferri carb..... gr. ʒ
Et. ft. pil., No. j.
R. Acid. arseniosi..... gr. ʒ
Cinchoninæ sulph..... gr. ʒ
M. Ferri et potass. tart..... gr. ʒ
Et ft. pil., No. j.

The sulphate of cinchonia in these pills may be advantageously substituted by a proportionate dose of sulphate of quinia, the former being used simply on account of its cheapness. One pill may be given after each meal.

TONIC IN MALARIAL CACHEXIA.

R. Quiniæ sulphatis..... gr. ij
Acid. arseniosi..... gr. ʒ
Pulv. capsici..... gr. j
Ext. taraxaci..... q. s.

To be taken before each meal.

WHITE ANŒMIA IS A PROMINENT SYMPTOM IN MALARIA.

R. Ferri et potassæ tart..... gr. v.
Liquoris potassii arsenitis..... M. ij
Potassii bicarb..... gr. x
Tr. nucis vomicæ..... M. v
Aque..... ad ʒ i

To be taken in a wineglassful of water, before eating.

J. O. WEBSTER, M.D.,
Augusta, Maine.

NEWS ITEMS AND NOTES.

Long Island College Hospital.—The following changes have occurred in the faculty of this institution: Prof. E. S. Bunker has resigned the Chair of Obstetrics for that of Histology and Pathological Anatomy; Prof. John D. Rushmore has resigned the chair of Materia Medica for that of Obstetrics; and Dr. J. A. McCorkle has been appointed Lecturer on Materia Medica.

Slight Injury from Severe Cause.—A couple of weeks since, Mr D. M. Anderson being misled by a lurch, which he supposed to be solid ground, was induced to make a leap,

...and in a full of two lay. ...and sixty feet, land-
ing ... The scene of the disaster was on the
... N. J. Mr. Anderson was much
disfigured, but received no severe injury; at least the latest
... from his medical attendants are cheering.

An Effective Cathartic.—The hearty welcome which is extended by all truly scientific medical men to important advances in therapeutics is our excuse for relating the following:

The town of B——, in this State has two medical men; one a regular graduate, the other a modest "vet" whose knowledge of cow and horse disease is briefly summed up in the portentous words "great experience." Mr. G—— was taken suddenly ill. The regular physician was out of town and not expected to return until the next day. After much solicitation at the hands of the sick man's friends, the "vet" consented to see Mr. G., and prescribe for him. After looking him over carefully he delivered himself as follows:

"Wal! if he was a cow, I should reckon he hed an all-fired attack of bilious colic, and I sort a guess I'd give that cow a pint a castor ile and a pound rochelle salts. Seein as how Mr. G. aint a cow, I'd sort a reduce the dose, giving him half a pint a ile and quarter a pound of salts. It's the only thing that'll fetch him."

The friends accordingly forced as much of this really valuable prescription into the sufferer as was possible, he being only semi-conscious.

The following morning the "vet" called to see his patient, and asked—"Wal! did the medicine have the desired result—did it move him?"

"It most certainly did," said a red eyed friend.

"How often?" asked the "vet!"

"Four times—once before death and three times afterward!"

The Medical Department of Yale college has adopted the rules of the Harvard Medical school—a preliminary examination and a three years' graded course.

On the night of July 12th, Ballston Spa, N. Y., was illuminated by an electric light located on the tower of the Grand Union hotel, Saratoga Springs, N. Y., a distance of 7½ miles. Ordinary print was read with ease.

Dr. H. H. Kane, of New York city, who has for some time past been collecting statistics on the hypodermic injection of morphia, would consider it a great favor if members of the profession who see this and have had experience with the instrument will answer the following questions:

1. What is your usual dose?
2. Do you use it alone or with atropia?
3. What is the largest amount you have ever administered?
4. Have you had inflammation or abscess at the point of puncture?
5. Have you had any deaths or accidents caused by this instrument?
6. Do you know of any cases of opium habit thus contracted.

Where there has been an autopsy (5) please state the fact and the results obtained therefrom. All communications will be considered strictly confidential, the writer's name being used only when he gives full consent thereto. Address all letters to Dr. H. H. Kane, 366 Bleeker street, New York.

At the Seance of the *Académie de Médecine* of August 5th, 1879, M. Larrey, for the Academy, accepted a portrait of Prof. Piorry painted by an American artist. The gift was from the great gynecologist, Dr. J. Marion Sims.

SYRACUSE, AUG. 26th, 1877.

To the Editor of the Hospital Gazette:

DEAR SIR: The Homœopathic dose of surgery that resulted the other day in giving an Iowa gentleman an immediate and "happy issue out of all his afflictions" by breaking his neck, is fittingly supplemented by the following medical prescription lately given to a lady in this city by a Homœopathic practitioner of considerable reputation in these parts. The paper was referred to me for an opinion as to its safety.

Thinking it too good to lose, I copied it "*verbatim et lit-*

tenum," as our brothers Otis and Sands have been teaching us to say; and here it is:

R. Caustic Potash.....Half an ounce.
Water.....Half a pint.
Aqua Ammonia.....Two ounces.
Pulv. Rhei.....Half an ounce.

Two-third teaspoon with cup of milk.

How is that for high dilution?

Yours,

M. D.

The British Medical Association, at the late session, August 8th, decided to hold the annual meeting for 1880 at the University of Cambridge, Prof. Humphry was elected President.

Dr. C. Hilton Fagge has been appointed Examiner in Medicine in the University of London, in the place of the late Dr. Murchison.

The portrait of the late Mr. Hilton has been presented to the Royal College of Surgeons by his widow.

The Louisville Medical College and the Kentucky School of Medicine, which have heretofore been run by one faculty, have parted. This puts an end to two graduating terms in six months, and can only result beneficially to the Profession. Brother Cowling, of the *Louisville Medical News* treats us to an amusing account of "the parting of the twins."

Prof. L. P. Yandell writes from London to the *Louisville Medical News*: "After a very extended intercourse with the profession here, I am inclined to believe that a majority of the strong men consider alcohol harmful as a beverage, and a very large number are very doubtful of its efficacy in disease. Such are my own views of alcohol."

In the same letter he says: "One of England's most successful and famous etchers is a large general practitioner, Dr. Gibson. Sir Henry Thompson, the great surgeon, is a painter of no mean order, and is devoted to the art. At Mr. Spencer Wells', the world's greatest ovariologist, I saw a bust of him made by Liebricht, the famous German medical philosopher, that is a work of high art. Every doctor should paint, or sculpture, or etch, or geologize, or botanize, or hunt, or fish. Such recreations do brain laborers vast good."

The St. Louis Grand Jury have presented an official report to the Judge of the Criminal Court, charging the Health Commissioner, Charles W. Francis, with intoxication and falsehood, in having resisted, while under the influence of alcohol, an investigation into the management of the City Quarantine Hospital. He endeavored to frighten off the members of the Grand Jury from the hospital by telling them that he had five well-defined cases of yellow fever there. The Jury found this statement to be absolutely false.

The *St. Louis Clinical Record* says:—"The ice treatment of sunstroke, as carried out at the City Dispensary under the eagle eye of the Health Commissioner, has been pushed to such an absurd degree that at last there seems to be a prospect for a suit against that official for malpractice. A man sixty-seven years old was recently kept in the ice-pack for *five hours*, unless the city papers are mistaken. Certain disturbances of the central nervous system have resulted, hence the prospective suit."

Dr. W. O. Roberts, of Louisville, mentions a register of 112° F., in a case of sunstroke, and thinks a higher temperature would have been shown had the thermometer been of higher register.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of *The Gazette*, and are favorably impressed with the character and value of the publication, should at once remit the amount for a year's subscription. We do not take to supply back numbers, either now or in the future, and our entire edition each week. We ask every member of the profession who receives this number, to give *THE GAZETTE* a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

ORIGINAL ARTICLES.

A STUDY OF ABOUT ONE HUNDRED AND TWENTY CASES OF FRACTURE OF THE PATELLA.

DR. FRANK H. HAMILTON,
Assistant Surgeon in Charge, H. A. Hospital.

(First Paper—Continued)

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION.—FIBROUS UNION.

CASE 29.—Miss C., æt. 40. Tripped and fell Feb. 1, 1870, and in the attempt to recover herself broke the right patella transversely. The fracture was about half an inch above its lower end. It was treated by Dr. W. V. White, of this city, upon a single inclined plane, according to my method.

Five weeks after the injury I saw the patient with Dr. White. The fragments were united by a ligament one-quarter of an inch in length. The dressing was continued a week longer, passive motion being employed occasionally. She walked about the house a little in April and May. The following autumn she wrote to Dr. White that she was almost entirely well. The only difficulty she experienced was in going up and down stairs.

CASE 30.—Bridget Regan, æt. 34. Fell Nov. 22, 1868, but recovered herself and did not touch the ground, breaking the left patella transversely. The fragments became at once separated four or five inches. She was sent to Charity Hospital and under my care my own apparatus was applied.

On returning to my service I found her, Feb. 3, 1869, seventy-three days after the injury, still upon the same apparatus. I removed the limb and found the patella united by a ligament of half an inch in length. Knee-joint almost motionless. This extreme anchylosis was due probably to the long confinement, but for this I was not responsible. I have no farther notes of the case, and do not know the final result.

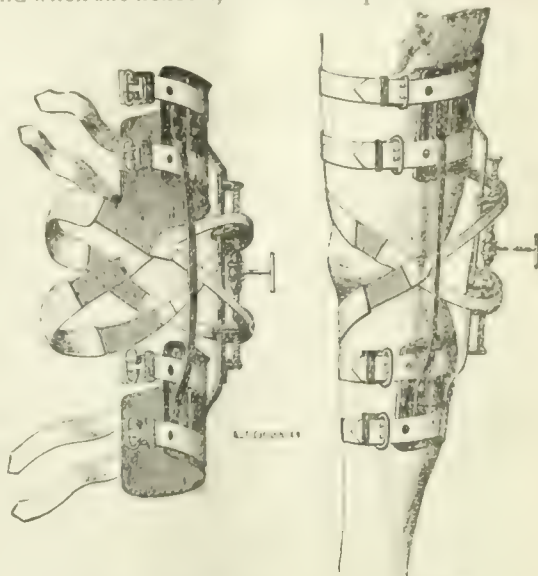
CASE 31.—Through the courtesy of Dr. Francis V. White, of this city, I have been permitted to see the following case treated by himself, and published, in connection with a valuable paper on fracture of the patella, in the *Medical Record*, July 1st and 15th, 1867.

Mrs. R., æt. 41, a rather fleshy woman, broke her left patella above its middle, July 11, 1860, from muscular action.

Dr. White applied Turner's apparatus on the third day, his intention being "to obtain bony union." This apparatus is essentially a back splint with an arrangement by which the adhesive strips laid above and below the fragments and obliquely around the splint, may be tightened from time to time by the action of a screw. This was worn sixty-nine days,

and sixty-eight days later "the patella appeared united by bone." Careful passive motion was employed at intervals during the treatment, which continued to the 28th of Nov., not quite five months. Before dismissal, he "had the patient occasionally sit on a table, and swing the leg." When Dr. White examined the limb about five months later he found a *fibrous* union of about half an inch in length. It is evident, therefore, that it was not bony when Dr. White supposed it to be; and this erroneous conclusion has probably often been made.

I examined Mrs. R. carefully in presence of Dr. White, Aug. 4th, 1879, nineteen years after the injury. Mrs. R. is still rather stout, and in good health. The upper fragment is separated from the lower, when she extends the leg, about half an inch, and when she flexes it, about three-quarters of an inch.



Turner's apparatus for fracture of the Patella

The fragments are of normal size, the lower—the largest—being very slightly tilted forwards at its upper margin. She can flex and extend the leg as perfectly as the other, and walks up or down stairs without a cane as naturally and as easy as any other person. She says, however, that she did not attain this perfection until about two years after the accident. Moving the lower fragment upwards causes a chafing, as if there was an absence of the synovial membrane, but this causes no pain.

Dr. White experienced some difficulty in preventing excoriations of the skin where the adhesive plaster crossed the limb above and below the fragments, precisely as others have experienced; nor could the patient walk about with the apparatus without considerable inconvenience. In short, while the apparatus seems to have answered its purpose as well as most other forms of dressing, the inventor cannot claim to accomplish more than can be accomplished by others; no bony union has resulted, the ligament has the average length, the patient was as long under treatment as others; but what interests us especially is that, after two years, the use of the limb is in all respects perfect. We cannot see, however, what special connection there is between this fact and the form of apparatus employed in the case under consideration.

CASE 32.—Martin Geiger, æt. 23. About eleven months ago slipped and fell backwards, breaking the left patella transversely.

He felt it give way; could not stand. Same day taken to New York Hospital. On the following day the limb was placed on an inclined plane, with bandages, &c. The knee was swollen. About four weeks later a plaster-of-Paris splint applied. Next day removed a section of splint of about four inches in width, from the upper to the lower end, placed pads above and below fragments, and with adhesive strips, a buckle, &c., drew the fragments together from day to day. This was kept on about three weeks, a part of which time he was on crutches. Then a silicate of soda splint was applied to the entire leg and thigh, and he was permitted to go about on crutches. Subsequently this was removed and a new one applied. After being in the hospital about sixteen or seventeen weeks he was discharged, a flannel bandage still on the limb. Soon after he went to the Hospital for Ruptured and Cripples, where an elastic knee-cap was applied, which enabled him to walk better.

By courtesy of Dr. Gibney, I examined the limb August 18, 1879, about eleven months after the injury. The fracture was transverse, and a little above its middle. Fragments separated $1\frac{1}{2}$ inches on the inner side, and $\frac{1}{2}$ inch on the outer side. The muscles of the thigh are atrophied, the circumference of the limb being three inches less than the opposite. He cannot flex the leg completely, and he has to walk very carefully, as the leg gives way easily. He has no power to straighten the knee when he is sitting, and the leg is flexed. It has not improved for some time past. When he left the hospital he could only move the joint very little. The fragments move freely, and a ligament can be felt distinctly on the outer side, but not on the inner. I advise discontinuance of the knee-cap.

CASE 33.—J. H., fireman, æt. 36. In descending a flight of steps rapidly, April 10th, 1879, fell, and in his effort to recover himself, without, striking the ground, he felt the patella give way with a snap.

He was immediately brought to Bellevue, 4th Surg. Div. The knee was found swollen and very painful. Fracture transverse, and below the middle. Crepitus. Ice-bags applied, and later a long posterior splint and a snug bandage from the toes up.

April 15.—Ice-bags and dressings continued until to-day. Swelling nearly gone. Considerable ecchymosis on sides of knee and back of thigh. A padded splint applied, ten inches broad, and extending beyond the foot. This was firmly bandaged to the leg, and, in order to bring the fragments together, bands of adhesive plaster encircled the limb completely a few inches above and below the knee: these serving as a basis; to the front of which were attached an elastic band and buckle, with pads underneath. Within two hours after this was buckled it was so painful that it had to be loosened. He received a subcutaneous injection of morphine, which was repeated in the evening.

April 16.—Strap and buckle tightened about the 25th of an inch.

April 18.—Tightened two-thirds of an inch. For sleeplessness ordered chloral hydrate, gr. xv.

April 20.—Apparatus removed and re-applied. Adhesive strips, form of figure-of-8, substituted for buckles and straps.

April 21.—Suffered great pain after last dressing. "Thought leg would burst." Apparatus removed and re-applied after more neat adjustment of fragments.

April 22.—Dressings disarranged. Removed and re-applied. Complains of pain in his foot. Ordered: morphine, U. S. sal., 3j.

April 23.—Dressings removed on account of the pain, and re-applied. U. S. sol., morph., 3 ss., in the morning, and 10 m. Majendie, sol. hypodermically at night.

April 27.—Ice-bags still continued.

April 28.—A long, straight board splint, padded, was laid upon the back of the leg and thigh. This was secured in place by plaster-of-Paris bandages, extending from the toes to the middle of the thigh, except that an interval or opening of about six inches was left over the knee and on the sides. A broad strap of webbing, furnished with a buckle, was made fast to the thigh by the aid of circular adhesive plasters placed above and below, to be buckled in front of the knee. Four pads were then placed upon the knee, namely, one above the patella, one below, and two in front; over these the strap was buckled, and the whole knee covered in by circular and reversed turns of a roller. The patient was now placed upon a bed, with the foot of the injured limb somewhat elevated.

My hospital service re-commenced May 1.—May 3 (about twenty-two days after the injury was received).—I examined the fracture, and found the fragments separated half an inch; the lower fragment being displaced inwards about half an inch, and it could not be restored to its position by force. There was slight lateral motion in the upper fragment.

The apparatus was permitted to remain, except that a pad, which had become displaced probably, and rested directly over the point of separation between the two fragments, was removed. It had caused a depression, and was likely to prevent the formation of the ligament. A pad was placed on the inner margin of the lower fragment, with straps to displace it outwards. This was found to be ineffective, and was removed on the 13th.

May 15.—Thirty-five days after the accident, and nineteen after the immovable apparatus was applied, the whole apparatus was removed, and my portable felt splint substituted.

At this time a careful examination of the limb was made, and the fragments were found separated and displaced as on the 3rd of May, that is, separated half an inch, and the lower fragment displaced inwards half an inch. The space between the fragments felt firm, as if a ligament had formed. The upper fragment could not be moved up or down, nor could it be disturbed by the action of his muscles in rising or lying down in bed. The patella was enlarged in all its diameters, half an inch. The splint was directed to be removed daily, and passive motion employed very carefully. He was permitted to go about upon crutches, and he was especially directed to keep his toes lifted by suspension from

the shoulder, it being noticed that they were inclined to fall into a state of passive extension.

May 30.—All apparatus removed and not re-applied, and it was now discovered that the toes fell in consequence of paralysis; the paralysis extending to most or all of the extensor muscles, and perhaps to some others.

In addition to elevating the toes by suspension from the shoulders, he was directed to make frequent efforts to move the toes, the electrical current was employed and also alternate douches of hot and cold water. Still later strychnine was injected hypodermically, $\frac{1}{48}$ th of a grain, *ter die*, and stimulating embrocations employed.

July 17th.—Has the power of moving one or two of his toes a little, and a favorable prognosis is made.

The ankylosis of the knee is diminished. The lateral displacement of the lower fragment has also nearly disappeared: its restoration seeming to be accomplished by the traction of the new ligament.

Sept. 6th.—Still in the hospital—paralysis continues only in extensors of great toe.

CASE 34.—A sailor was thrown backwards, breaking the patella transversely. He came under my charge on the third day. My apparatus (inclined plane) was applied, and in four weeks the fragments were united by ligament, with a separation of half an inch.

CASE 35.—Mary Conolly, æt. 32. Fell February 15, 1876, breaking the left patella transversely. She does not know how she struck. Taken same night to Chambers St. Hospital. She says no splint was applied, but her account of the treatment at this hospital is not very reliable, except that she says the fragments were drawn together by adhesive strips laid longitudinally.

She was admitted to Bellevue, March 27th, where, under my instruction, a leather splint was moulded to the back of her leg, covered with woollen cloth and secured in place by rollers: the rollers being carried in the form of a figure-of-8 above and below the knee.

May 3.—About five weeks after admission, the splint was removed, and the fragments found united by a ligament half an inch in length. Considerable motion in joint. The splint ordered to be removed daily and the joint moved carefully.

CASE 36.—Edward Laffy, æt. 20. Fractured right patella transversely, Oct. 24, 1851. Dr. Shaw, of Silver Creek, N. Y., dressed the limb with Sir Astley Cooper's apparatus (*see my Treatise on Fractures and Dislocations, 5th Ed. p. 469*).

Nov. 1.—He came under my care, and the same dressings were continued to Nov. 26, when my own apparatus was substituted. This also was removed Dec. 5th, forty-one days from the day of the injury.

The fragments had united by a ligament one-quarter of an inch in length.

CASE 37.—Miles Griffin, æt. 47. Admitted to Bellevue, March, 1871, with a simple transverse fracture, about the middle of the right patella.

Dressed with plaster-of-Paris bandage.

I saw the limb when it had been eight weeks in the splint. Fragments united by a ligament half an inch in length. Almost complete ankylosis.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—FIBROUS UNION—RUPTURE OF LIGAMENT.

CASE 38.—Sarah Vibbett, æt. 27. Fell while walking, Nov. 24th, 1874. She felt the bone break before she struck the ground, and she was unable to straighten her leg. She was taken to the Park Reception Hospital, Dr. Fluhrer in charge. A plaster-of-Paris splint was applied on the same day. She left the hospital in four weeks, and four weeks later the splint was removed. She says the knee-joint was then perfectly immovable, and that she could lay her thumb between the fragments (union by ligament of, probably, half or three quarters of an inch). In February 1875, about one month after the splint was removed, she fell again, and then found the fragments had been separated three inches.

April 22nd.—About five months after the first accident, and about two months after the second, she was in Dr. Erskine Mason's service at Bellevue, and through his courtesy I was permitted to see her. I found the upper fragment separated from the lower three inches while the leg was straight, but when flexed it ascended four inches. By keeping the leg carefully under the center of gravity she could walk slowly, moving the toes forwards and backwards by the action of the muscles about two inches.

Dr. Mason has applied a knee-cap and does not propose to do any thing more.

CASE 39.—A. T. Smith, Davenport, Ohio. In jumping from a carriage Nov. 23, 1874, broke the patella of the right leg, transversely and below the middle. Caused by muscular action, as his knee did not strike the ground. Dr. Maxwell, of Davenport, was called. The fragments were separated, when the leg was straight, half an inch, and when flexed one inch. Dr. Maxwell applied a splint made of binder's board, and moulded to the back of the limb, straight; and secured this with figure-of-8 bandages about the knee, and with circular bandages at other points. This was worn about three months, he being permitted most of the time to go about. When finally removed the fragments seemed to be well united by ligament, "with only a little separation on the inside". From this time the ligament has been gradually giving way, and when he consulted me, February 28, 1876, about fifteen months after the injury, I found the fragments separated three inches. The muscles of the thigh were small. He could not straighten the leg completely by muscular action, but he walked slowly without any appreciable halt. I advised continued use of the limb and daily use of the battery.

CASE 40.—Asst. Surg. T. D. Myers, U. S. Navy, æt. 29. Broke his right patella May 19, 1874, when returning from the U. S. Ship, Kearsarge, from muscular action in attempting to save himself from a fall. The fracture was transverse, and below the middle—at the upper end of the lower fourth. The fragments at once separated fully four and a half inches. Surgeon Bloodgood in charge. May 21, he was sent to the hospital at Yokohama. A long posterior splint was applied and the fragments secured with a figure-of-8 bandage. May 24th, Lausdale's apparatus (*see fig. 216, p. 472, fifth Ed. of my work on Fractures and Dislocations*) was applied. This was worn five days, when it was found to have caused

a slight ulceration above the upper fragment, and it was removed. A straight splint, secured at the knee by adhesive strips was substituted, and kept on several weeks, and soon after he began to walk, the fragments being united by a ligament one half of an inch in length on the inside, and one quarter of an inch on the outside.

Aug. 2nd, 1874.—Seventy-five days after the first injury was received, and not long after he began to walk, he slipped and broke it again from muscular action. He was still in the hospital at Yokohama. A plaster-of-Paris splint was now applied, which was renewed once in about eight days, and finally removed at the end of eight weeks. While this splint was on the limb he was allowed to go about on crutches. On removal it was found that no union of any kind had taken place. From this time forwards, a period of over five months and two weeks he has supported the limb with a leather splint, and has walked about on crutches or with a cane.

Asst. Surgeon Myers consulted me March 17th, 1875. I found the fragments separated four and a half inches with very little motion at the knee-joint. Could not detect any bond of union. Advised the removal of the leather splint, and a daily use of the limb by passive motion and active exercise in walking, electricity, shampooing, &c.

In a letter from Asst. Surgeon Myers, dated May 23d, 1875, he says: "Since consulting you, March 17th, 1875, I have steadily pursued the plan of treatment suggested by you," &c. "The functions of the limb have gradually returned, till now I am able to walk very well, with very little or no limping." * * * "The atrophy of the muscles is gradually disappearing," * * and he concludes with expressions of gratitude for the happy result of the change in the mode of treatment. (For a more full account of this case, see *Buffalo Med. Jour.*, Sept. 1879.)

SIMPLE TRANSVERSE FRACTURE.—EXACT CAUSE UNKNOWN.—FIBROUS UNION.

CASE 41.—James McCuen, æt. 33. Fractured the left patella transversely. Dr. Mixer, of Buffalo, and myself in attendance. We employed a straight splint and a roller. Dressings were continued three weeks and three days.

I examined this limb two years later and found the patella united by a ligament half an inch long. The leg was not quite as strong as the opposite.

SIMPLE TRANSVERSE FRACTURE.—EXACT CAUSE UNKNOWN.—FIBROUS UNION.—RUPTURE OF LIGAMENT.

CASE 42.—James T., æt. 38. Fractured his left patella in 1862. It united by a short ligament which was subsequently ruptured by a fall. Jan., 1866, while an inmate of Bellevue Hospital, I examined his leg and found the upper fragment separated from the lower three inches and a half, in which position it was fixed immovably. He wore habitually a leather splint made fast against the back of the knee-joint, and with this he was able to walk. After the original fracture, which was probably from a direct blow, suppuration ensued, involving the knee-joint, but this left no ankylosis; the motions of the joint being free.

CASE 43.—R. J. Donohue, æt. 50. Admitted to Bellevue Hospital, Feb. 16, 1866, 1st Surgical Div., ward 10. He stated that about eight weeks before, he broke the right patella.

It was treated by a surgeon in the city and united with a short ligament. Four or five weeks later he sat down upon a stone, and on attempting to rise he felt the ligament give way. When admitted the fragments were separated one inch and ununited. We placed him upon my inclined plane apparatus and drew down the upper fragment by adhesive plasters, laid obliquely over leg and splint. The apparatus was removed March 15th, and the fragments were found to have united with a ligament one-quarter of an inch in length. April 1, he was discharged.

CASE 44.—Wheeler, æt. 40. Fractured transversely. The fracture was treated by Dr. Williams. I examined the knee nine weeks after the fracture occurred. The patient says that the dressing was removed at the end of four weeks, and one week later he began to walk, but that he almost immediately felt the ligament tear or give way on the inner side.

I found the ligament unusually short on the outer side, the fragments being apparently in contact, but they were separated one-quarter of an inch on the inner side. The patella was considerably enlarged in its circumference, as if it had become hypertrophied or had received a new deposit of bone around its margins.

CASE 45.—Michael Fox, æt. 24. Fell Jan. 1, 1876, breaking the right patella transversely.

This man had the foot of the same leg amputated five months before, in consequence of a railroad injury. After the fracture of the patella he was brought to Bellevue, and a plaster-of-Paris splint was applied. Union took place with a ligament.

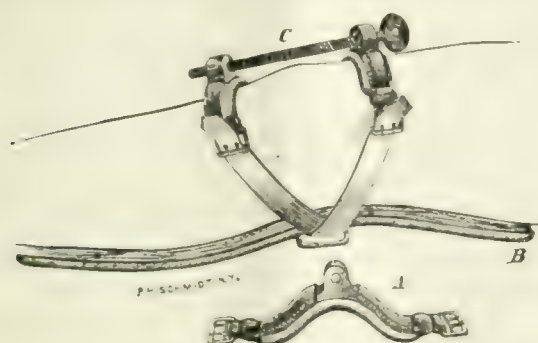
June 13, 1876.—Five months and two weeks after the first fracture he fell and ruptured the ligament. Admitted to ward 30 (my service.) The limb was much swollen. Fragments separated three inches. I applied a leather splint, moulded to to the back of the limb, covered with flannel, and secured the fragments with bandages, circular and oblique (no farther record).

CASE 46.—Carl Abend, æt. 30. Broke his left patella December 4, 1850. Under treatment it united, and on the sixty-first day after the fracture occurred he accidentally ruptured the ligament, and was admitted to the Buffalo Hospital of the Sisters of Charity three days later. I found a transverse fracture with the fragments separated one inch. The whole limb œdematous; and as the limb had been confined to the splint most of the time since the fracture, I directed it to be left free, and to be bathed twice a day with cold water, and to be rubbed.

Ten days after admission, seventy-four days after the fracture, and thirteen after the rupture, the limb was laid upon and secured to my inclined plane splint. Four weeks later all dressings were removed and the fragments were found united with a ligament of one quarter of an inch in length.

CASE 47.—G. S., male, æt. 35. Fell Dec. 7th, 1878, breaking (probably) his right patella; whether from muscular action or direct force, is uncertain. A

"bone-setter" saw him, and for three weeks he remained at home with a roller on his leg, not knowing that it was broken. He then went to work, with the roller still on. About eight weeks after the first accident, he met with a second slight accident, and one week later consulted Dr. John A. Wyeth of this city. Dr. W. found a transverse fracture; the fragments separated one inch, and no union. Dr. W. brought the fragments together with adhesive strips and applied a plaster-of-Paris dressing. The next day he walked about. Three weeks later the splint was removed, passive motion employed, and the plaster splint reapplied. At the end of six weeks it was finally removed. There was fibrous union of $\frac{1}{2}$ inch in length. Five days later he slipped and broke it again. The fragments were now separated 3 inches. Finding that none of the ordinary means sufficed to keep the fragments together, Dr. W. had the following instrument constructed and applied:



Wyeth's Apparatus.
FIG. 5.

This instrument was removed at the end of twenty-four hours, and the plaster-of-Paris splint again applied, with a fenestra over the patella. Between the fragments Dr. W. then injected, following the experiment of Ollier and Goujon, fresh marrow cells. No result except a fibrous union (*See Medical Record, May 11, 1878, for a full report of this interesting case*).

By courtesy of Dr. Wyeth, I saw this man Aug. 26, 1879, nearly nine months after the original injury.

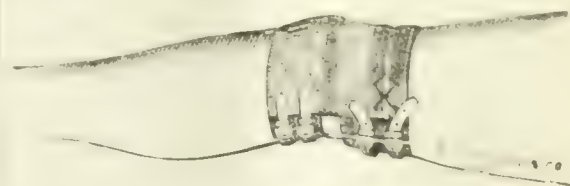
The fragments were then separated 1 inch and $\frac{3}{8}$ on the outside, and 1 inch and $\frac{1}{4}$ on the inside. He could extend the leg fully, but could only flex it 15° . There was considerable grating under the fragments when they moved. He walked very well on a level surface, but always put the left foot first in ascending or descending. He suffered no pain.

CASE 48.—Mrs. R. W. H., æt. 36, was thrown down in alighting from a Broadway stage, Dec. 9, 1878, causing a simple transverse fracture of the right patella. She cannot say whether she struck the knee or not; there was no abrasion of the skin. A surgeon was called immediately, and within one hour after the accident a plaster-of-Paris splint was applied, extending from the toes to the middle of the thigh, but not covering the heel. Three days later vesicles had formed upon the heel, and it became necessary to open the splint from the toes to a point above the ankle.

Feb. 3, 1879.—Splint removed. Fragments united by a short ligament, and very little mobility of knee-

joint, a roller was applied, and after five days more a Tieman's knee-cap was applied. Three weeks after the splint was removed she began to walk on crutches, using also passive motion.

About the 1st of March Mrs. H. discovered that the ligament had stretched, or given way on the inside.



Tieman's Knee-cap.
Fig. 6.

April 11th, 1879.—I saw her in consultation with her surgeon. The fragments were separated on the inner side three-fourths of an inch, and on the outer side one-half inch. The upper fragment is consequently a little tilted. The fracture was transverse, and the upper fragment, constituting one-third of the patella is depressed slightly below the level of the lower. Along the upper margin of the lower fragment there is also a slight crest—probably bony callus—Both fragments are a little hypertrophied. She says she has not flexed the limb forcibly, and that she did not feel the ligament give way. She walks on a level surface with a cane, and can even walk up and down stairs if she walks slowly and carefully. She can only flex the limb slightly.

SIMPLE OBLIQUE FRACTURE.—DIRECT FORCE.—
FIBROUS UNION.

CASE 49.—Margaret Kielt, æt. 67. Fell January 4, 1867, upon her left knee, breaking the patella obliquely downwards and inwards, she was admitted on the same day to Ward 18, Bellevue Hospital. Fragments separated half an inch. My inclined plane apparatus was applied. January 14, fragments separated $\frac{1}{4}$ inch, and when I went off from duty, Feb. 1, a ligamentous union existed, the fragments being separated half an inch.

Feb. 14th.—All dressings removed.

Feb. 24th.—Knee-joint quite stiff.

Feb. 28th.—Forcible flexion. Posterior adhesions of the patella yielded with a snap. Patella more movable. March 30, passive motion has been continued to date.

She was discharged April 14, 1867, the knee-joint having still only a limited amount of motion.

COMMUNICATED FRACTURE.—DIRECT FORCE.—
FIBROUS UNION.

CASE 50.—Bridget Brennan, æt. 58. Fell August 31, 1870, upon the sidewalk, striking on her left knee. She was admitted on same day to the 3d Surg. Div., Bellevue—my service. There was a comminuted fracture, the knee was swollen, and the joint itself inflamed. Tinct. of iodine was applied externally "as a counter irritant." Certainly not by my orders).

Sept. 3d.—My own inclined plane apparatus was applied. September 12th, as the position caused pain, the apparatus was removed, and a long posterior leather splint substituted, the fragments being

supported by oblique and circular turns of the splint.

Nov. 27th. 27th day—the records say:—"Although union is very poor, the fragments being still separated $\frac{1}{4}$ of an inch, at her own request she is discharged, still wearing the splint." (I shall congratulate the gentleman who made this record if his average success since he left the hospital has been better than this).

CASE 51.—Owen Gallagher, *æt.* 27. Fell from a height striking on his knees, Jan. 8, 1868, and breaking the right patella (comminuted.)

He was admitted to First Surg. Div., Bellevue Hospital, Jan. 20th. On the 22nd, two weeks after the accident, my inclined plane apparatus was applied. Up to this time, owing to the swelling, &c., no splint had been applied.

Feb. 1st.—My service terminated, the limb being still in the apparatus.

United by ligament half-an-inch long.

COMMINUTED FRACTURE.—DIRECT FORCE.—SUPPORTED BONY UNION.

CASE 52.—Charles Jones, *æt.* 5. Fell on his left knee, Jan. 31, 1848, breaking off a small fragment from the upper and inner margin of the patella. When the leg was flexed it became tilted forwards, and projected sharply under the skin; but when the leg was straight, it resumed its natural position in contact with the body of the patella.

Dr. Austin Flint and myself being in attendance, we applied a straight posterior splint, and six months after no traces of the injury remained.

CASE 53.—Wm. P., *æt.* 25. Fell Dec. 27, 1853, breaking his left thigh and patella. The thigh was broken in its middle third. The patella was broken transversely in its middle, and vertically near its inner margin. Drs. E. and D., were in attendance until the fifth day, when I was added to the consultation. We laid the limb upon a single inclined plane, securing the fragments of the patella in apposition as near as possible with adhesive strips and a roller. The patella had united on the fifty-eighth day.

Five months after the fracture occurred, I found the main fragments separated half-an-inch; the bond of union feeling firm like bone. The small lateral fragments had not united, and it was movable. He had but little motion at the knee-joint, but was able to walk and to pursue his occupation as a carpenter. The femur had united with a shortening of half-an-inch.

FRACTURE OF BOTH PATELLÆ, AT DIFFERENT TIMES, FROM DIRECT FORCE.—FIBROUS UNION.—SUBSEQUENT FRACTURE OF BOTH LIGAMENTS, AND NO UNION.

CASES 54 and 55.—Jeremiah Murphy, of No. 3 Bridge street, New York, *æt.* 26, broke his *left* patella transversely, below the middle, by a fall upon the knee. A surgeon of this city was called and applied bandages. He was four or five weeks in bed, and then went out, using a cane. Fragments were then found to be separated. Aug. 30, 1879, 17 years after the accident I found the fragments separated $3\frac{1}{2}$ inches when the leg was straight, and $4\frac{3}{4}$ when it is flexed. Frag-

ments of normal size. No ligament between fragments; but along their outer and inner margins the tendinous fibres of the quadriceps are prominent and especially on the outer side. He cannot extend the leg by muscular action when sitting, but he can flex it to an acute angle with the thigh. Standing, he can flex and extend it perfectly. In extending he turns the foot out, in order to bring into action the outer portion of the quadriceps. He has always since the first accident, been some lame with the leg, but could walk several miles, and carry loads without a cane.

May 25th, 1879, he slipped and fell striking upon the *right* knee and breaking the *right* patella transversely about its middle. Dr. S. called: very much swollen. June 1, Dr. S. applied adhesive strips over and about the patella, then a plaster-of-Paris bandage from the hollow of the foot to above the knee. After fourteen days got up on crutches. Splint remained on six weeks and three days, could not then bend the knee. Fragments were separated an inch or more. Began to walk. A few days later the leg suddenly gave way and he fell back. The skin became discolored, and it swelled very much.

Fragments now separated $1\frac{3}{4}$ inch, when the limb is straight, and 3 inches when it is flexed. He walks slowly without a cane; but is in constant fear of falling. I advise him to submit to a second trial to obtain a more satisfactory result in the case of the right leg.

FRACTURE OF THE SHAFT OF THE FEMUR DURING AN ATTEMPT TO REDUCE AN ANCIENT DISLOCATION.

BY

J. S. WIGHT, M.D.

Professor of Surgery at the Long Island College Hospital.

On May 2d, 1879, John Williams, 53 years of age, born in Scotland, single, a seaman, was admitted to the Long Island College Hospital. About four months previous to date of admission, while at sea, the patient was thrown down on his left side, injuring his left shoulder and his left hip. The upper limb and the lower limb had been put in splints by the captain of the vessel. The patient removed the splints from both limbs and would not permit them to be reapplied. The patient was in a helpless and pitiable condition when he came into the hospital. He had very good use of his left upper limb; so far as it was possible to say, he had received a longitudinal fracture of the upper end of the left humerus. He was sent to the hospital on account of his left lower limb, and on the day of his admission the following facts were noted, namely:

1. Right leg from the knee-joint to the lower end of the external malleolus measured fifteen inches.
2. Left leg from the knee-joint to the lower end of the external malleolus measured fifteen inches.
3. Right femur from the top of the trochanter major to the knee-joint measured $18\frac{1}{2}$ inches.
4. Left femur from the top of the trochanter major to the knee-joint measured $18\frac{1}{2}$ inches.
5. The right thigh from the anterior superior spine of the ilium to the knee-joint measured about 19 inches.

6. The left thigh from the anterior superior spine of the ilium measured about 17 inches.

7. The long axis of the left thigh and the long axis of the body meet at an angle of about 135° , the thigh being flexed on the body.

8. The left lower limb was somewhat adducted.

9. The left lower limb was somewhat inrotated.

10. The trochanter major of the left thigh was prominent and somewhat enlarged.

11. The left trochanter major was nearer the sacrum than the right trochanter major.

12. On the right side the distance from the crest of the ilium to the trochanter major was $5\frac{1}{2}$ inches.

13. On the left side the distance from the crest of the ilium to the trochanter major was $3\frac{1}{2}$ inches.

14. The muscles of the left lower limb were atrophied—and there was marked immobility of the limb. The patient could not move his own limb; and the surgeon could move the limb only to a limited extent, and even that caused very considerable pain.

15. The patient said, that when he was first injured, his left lower limb was much adducted and inrotated; on this point he was interrogated over and over again—and always gave the same answer, which has just been noted. He also said, that at the time of the injury, neither he nor the captain could move the injured lower limb.

I then told the patient that he had a dislocation of the left femur. On the evening of the same day Drs. Thorne and Dodge, who were present at the consultation, agreed with me in the diagnosis. It would seem as if there had been a consecutive dislocation of the head of the femur into the sciatic notch. As desperate as the case appeared to be, it was concluded to make a reasonable attempt to reduce the dislocation at an early day.

On the afternoon of May third I had the patient brought into the amphitheatre of the college, where I made to the class of medical students the following remarks, namely:

1. In the opinion of Sir Astley Cooper it would be imprudent to attempt to reduce a dislocation of the femur after eight weeks;—though dislocations of the femur of longer standing have been reduced,—but in many instances evil results have followed.

2. To-day we will, in some respects, disregard the advice of this great authority: We will give our patient ether, and then make gentle manipulations. We do not surely expect to reduce the dislocation, yet we may make a reasonable attempt. Under ether we may determine quite accurately the fact of there being a dislocation of the femur, and perhaps demonstrate that the dislocated bone cannot be put back into its normal place.

I then flexed the leg on the thigh; and flexed the thigh on the body; and when the axis of the thigh made a right angle with the axis of the body, the knee was found to be about two inches *below* the knee of the opposite limb; and this was confirmatory of the diagnosis; and then the thigh was adducted, while being flexed a little more. During this time the force applied in the manipulation was quite insignificant; but a loud report was heard all over the amphitheatre, indicating that something had given way—in fact I felt something give way in the patient's hip, and immediately brought the injured

limb down by the side of the sound limb. The immobility of the limb was gone—there was great mobility. Putting my right hand on the hip I found that I had broken the femur just below the trochanters, and could very distinctly feel the rough upper end of the lower fragment under the wasted tissues: Then I remarked, I have taken the angles and the immobility out of this man's lower limb, and think I have benefited him—in time we shall see.

After that the foot and limb tended strongly to be everted. I did not deem it desirable to apply extension. I let the upper end of the lower fragment go up against the upper fragment and toward the acetabulum. In this position the limb had not become much shorter than it was before the fracture. I then put on a long side splint to support the limb and keep it at rest, and put the patient in his bed, where he passed a comfortable night.

Subsequently I made passive motion from time to time hoping to have a new joint, where the upper end of the lower fragment of the femur came against the upper fragment. But a considerable quantity of callus was formed, which held the two fragments of the femur together, and leaving a kind of joint between the large mass of old and new bone and the pelvis. About the last of June the patient began to get out of bed, and in a short time he was going around the ward on crutches. He was able by the middle of July to go into the yard of the hospital by means of a crutch and cane. During all this time his general condition had very much improved.

On the 29th July, I made the following measurements and observations, namely:—

1. The right thigh from the anterior superior spine of the ilium measured about $19\frac{1}{4}$ inches.

2. The left thigh from the anterior superior spine of the ilium measured about $17\frac{1}{4}$ inches.

3. The right leg from the knee-joint to the lower end of the internal malleolus measured about $14\frac{1}{2}$ inches.

4. The left leg from the knee-joint to the lower end of the internal malleolus measured about $14\frac{1}{2}$ inches.

5. The right lower limb from the anterior superior spine of the ilium to the lower end of the internal malleolus measured $33\frac{3}{4}$ inches.

6. The left lower limb from the anterior superior spine of the ilium to the lower end of the internal malleolus measured $31\frac{3}{4}$ inches.

7. The right trochanter major was eight inches from the anterior median line of the body.

8. The left trochanter major was nine inches from the anterior median line of the body.

9. On the right side, the crest of the ilium was $5\frac{1}{2}$ inches from the trochanter major.

10. On the left side, the crest of the ilium was $3\frac{1}{2}$ inches from the trochanter major.

11. The left hip was prominent, especially somewhat on the posterior aspect.

12. The left lower limb was abducted, yet the adductors of the thigh were lax.

13. There was some atrophy of all the muscles about the hip and thigh of the left side.

14. The patient, by volition, could move the left thigh forward about 45° , backward about 10° , outward about 15° , and inward about 15° . He could

support the weight of his body on the injured limb. He had a very perceptible limp.

The following remarks may now be made namely:

1. Making a reasonable allowance for the difficulty of accurately measuring the length of the injured limb, when the patient first came into the hospital, the limb was not shortened by the breaking and subsequent treatment more than one-half of an inch.

2. The breaking of the femur was purely accidental—and was caused by a minimum of force.

3. An immobile, painful, and useless limb was transformed into a movable, painless, and useful limb.

4. The outrotation of the lower limb below the seat of fracture was evidently caused by the action of the sartorius, the adductors, and the biceps cruris.

5. In this case the bone must have been very brittle; and the case itself would not quite agree with the rule, that attempts at reducing more ancient dislocations of the femur may be made, when the patient is somewhat advanced in years.

6. In reducing an ancient dislocation of the femur, the possibility of breaking the bone may arise. One of three results must follow an attempt at reduction: (1) The bone may be put in place; (2) The bone may be broken; (3) The bone may *not* be put in place.

7. The most desirable result would be the reduction of the bone: the next most desirable result, so far as can now be judged, would be to fracture the bone just below the trochanters, and the least desirable result would perhaps be the non-reduction of the bone.

8. It is not proposed to draw any general rule of procedure from a single case that has turned out fortunately. The case seems to indicate that a moderate and reasonable attempt may be made to reduce an ancient dislocation of the femur, when the bone has been out of place four months.

9. The attempt that was made to reduce the dislocation of the femur above described appears to be justified. Especially when we take into account the result.

10. If another case of ancient dislocation of the femur of four months standing were to come to me for treatment, I should certainly make a reasonable attempt to put the bone in place.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

Prepared for THE HOSPITAL GAZETTE.

DAVID FRANKLIN, M.D., HON. PHYSICIAN.

CASE OF HEPATIC ABSCESS, PLEURISY AND PERITONITIS.

James Tully, age 27. Admitted Feb. 11th, 1879. Family history unimportant. He says he has been a healthy man until the present illness, denies ever having had venereal disease. Has been addicted to the use of alcohol, going off on an occasional spree of a week or two, and in the intervals he has been accustomed to drink moderately. For the past two years his occupation has been, during the summer, as seaman on vessels going to the West Indies, and

in the winter he has taken care of the furnace fires of a factory in this city. At this latter occupation he was engaged until ten days before admission, when he was taken sick. As fireman he was exposed to great heat, and when in a profuse perspiration he would sit in a cool, draughty place to cool off; at such times he occasionally had a trembling and a coldness run all through him. For the past two months he has not been feeling quite well but has had no more definite symptoms than the rigors mentioned.

That he was not seriously ill is evidenced by the fact that he continued at his work, which was laborious, and his wife and his brother say they considered him very well, as he had not complained at all. Ten days before admission he went out on a spree and stayed out all night, and slept out. The next day he complained of pain in the abdomen, (epigastrium and hypogastrium), was extremely thirsty and vomited several times. The nature of the matter vomited could not be ascertained. These symptoms continued up to the time of admission, with no particular change except increased weakness.

February 11th.—On admission, he appears well-nourished, is not anæmic, but has a sallowness and his countenance is expressive of pain. His respiration is rapid and shallow; taking a free inspiration gives him pain in the right side (right hypochondrium); there are also pain and tenderness in the hepatic region and epigastrium; he complains of intense thirst and is constantly asking for drinks.

On physical examination, inspection shows that there is normal movement in the left side, but very little expansion in the lower part of the right side; the up and down movement is normal. On palpation it is noticed that the fremitus is diminished but not suppressed on the right side; the left is normal. Percussion shows complete dulness below the line of the nipple in front and from the same level in the axilla, posteriorly there is dulness in the infrascapular region. On auscultation, the left side is normal; on the right side there is diminution of the respiratory sounds at the base of the lung; fine râles are heard at the base of the right lung. The dulness extends to the left hypochondriac region, where the percussion note is tympanitic.

Pressure over the abdomen causes pain, referred to the epigastric and hepatic regions. Temperature $100\frac{1}{2}^{\circ}$, pulse 90, full and compressible. The bowels had moved shortly before admission, but no attention was paid to the character of the discharge.

Ordered: Quin. sulph. gr. xv; liq. morph. sulph. (U. S. P.) 3 j.

Feb. 12.—There is some tympanitis this morning; temperature 101. Thirst and pain still continue; ordered quin. sulph. gr. x t.i.d. and liq. morph. sulph. (U. S. P.) 3 j to relieve pain; and to have ice to swallow.

On examination this afternoon bronchial breathing and voice sounds were heard over an area the size of a silver dollar, in the right infrascapular region. Temperature P.M. $101\frac{3}{4}^{\circ}$.

Feb. 13.—Temperature A.M. $100\frac{3}{4}$, pulse 96, respiration 48. Tympanitis is much greater than yesterday. Sclerotics are slightly tinged with yellow.

At 11.30 A.M. he had a slight convulsion, which

affected both sides and lasted for a few seconds; after it he felt as usual. At 12.30 he had a second convulsion, which was quite severe, and lasted about a minute and a half, after it was over he complained of loss of sight; he could distinguish between light and darkness and could tell when a hand was placed before his eyes, but could do no more. His pulse was very weak and irregular; there was no loss of consciousness or intelligence, and no paralysis; the pupils were normal. He was immediately given ammon. carb. gr. v and whiskey $\frac{3}{4}$ ss; this brought up the pulse a little. Ammon. carb. gr. v and whiskey $\frac{3}{4}$ ss were given alternately, hypodermically, every fifteen minutes; but at two P.M. he suddenly died of cardiac failure.

AUTOPSY.

Lungs.—The right lung was so firmly bound down by adhesions to the diaphragm and the lower portion of the chest wall that it could only be removed by tearing it out and leaving the base attached to the diaphragm; the adhesions to the sides were not so firm, and consisted of fibrinous bands stretching across the pleural cavity. There was a patch of pleural exudation over the posterior surface of the upper portion of the lower lobe; beneath this recent pleurisy there was a corresponding area of lung tissue in the first stage of pneumonia. The rest of the lung was healthy.

Heart.—Hypertrophy of the left ventricle, thickening of the mitral valve.

Liver.—Very much enlarged. *In situ* it measured $11\frac{1}{2}$ inches from right to left, and from top to bottom of right lobe 10 inches. It was firmly bound by adhesions on its upper surface to the diaphragm, and the abdominal walls, and its entire covering was thickened. On its anterior surface there was a spot of recent perihepatitis, about three inches square. Distinct fluctuation was present in the right lobe. On removing the liver from the abdominal cavity, the lower portion of the right lobe broke, and a large quantity of purulent fluid and necrosed liver-tissue were evacuated. The entire right lobe was disintegrated by the abscess, the walls of which were soft and sloughy. The weight of the liver after the loss of the above-mentioned mass of soft and purulent material was $8\frac{1}{2}$ lbs. The left lobe was congested. In the gall-bladder were evidences of its lining membrane; the biliary duct was hypertrophied.

The Peritoneal Cavity contained a good deal of serum, and there were spots of roughening in the peritoneal coat of the jejunum and ileum.

Alimentary Canal.—There was a croupous inflammation extending from the lower portion of the œsophagus to the upper portion of the ileum. There were cicatrices of several old ulcers in the cæcum, and one recent one, about $\frac{3}{8}$ of an inch in diameter. The rectum was slightly inflamed.

Spleen was enlarged, softened and congested.

Kidneys were enlarged, hardened and congested.

Brain not examined.

None of the tissues were bile-stained.

A CASE OF TRANCE.

The case of a woman in the state of trance, now under the care of Dr. Langdon Down in the London Hospital, has excited much interest and presents a well marked example of this condition. The patient is a woman twenty-seven years of age, of rather small stature and weak mental capacity. She was admitted on April 3rd on account of symptoms connected with extensive disease of the heart, for which she had been treated as an in-patient in 1877. When admitted, there was marked aphonia; she complained of great precordial pain, and frequently expressed her firm idea that "she was going to be married." At this time she had no difficulty in taking liquids; no marked nervous symptoms were present beyond the loss of voice. About May 7th, prostration became marked, without any signs specially attributable to the heart-disease, and she evinced great disinclination to take food of any kind. In a few days, she fell rather suddenly into a state of trance, in which condition she has remained ever since. At first, she could be induced with difficulty to take liquids, but soon she would not swallow even such food, and nutrient enemata had to be given. For a few days, she would reply to questions by monosyllables, but later gave no sign of consciousness, remaining perfectly passive and motionless and could not be roused. There was never any kind of convulsive seizure, local paralysis, or sign of any further lesion connected with the heart-disease; the pulse remained full throughout; the bowels were confined. There was well marked reflex action on touching the conjunctiva; the pupils were of moderate size and active to light. No reflex action was obtained on tickling the feet, and she seemed quite insensible to pricking or pinching the skin. The temperature remained normal. For three days, she was fed by an elastic catheter passed through the nostrils to the pharynx—a proceeding which she made some attempt at resisting. This condition differs from catalepsy in its lifelessness; but for the performance of the organic functions, there is no muscular rigidity, the limbs when raised fall as if lifeless, and, if placed in certain attitudes, are not retained fixed as in catalepsy. At present, the patient remains in the state described, giving no signs of consciousness; her condition appears to be exactly that of the famous Welsh fasting girl, and there is no sign of special disturbance resulting from her heart-disease. For the particulars of this case we are indebted to Dr. B. Rygate, House-Physician.—*Brit. Med. Jour.*

THE HOSPITAL GAZETTE,

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EDWARD J. BERNINGHAM, A.M., M.D. { Editors.
FREDERICK A. LYONS, A.M., M.D. }

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NEW YORK, SATURDAY, SEPTEMBER 13TH, 1879.

EDITORIAL.

THIS, AND THAT.

Medical college announcements abound. Generally, they are fine specimens of art, having an illuminated title page, while the inside pages are solid with a titled faculty that would make a courtly train feel ashamed of its pretensions; but the spice of the whole performance is in the grand recognition of the present demand for a higher medical education by each and all of them. There is a sameness about those title pages which is growing wearisome. The external architecture, with the inevitable span of dashing coursers, the gaping couple of octogenarians from the rural districts, and the small boy rapidly working his pedal extremities, waving his bandanna on high as he pretends to hasten to the college, fails to rouse the enthusiasm as once they did. There is and has been need for so many honorable titles, that the sources whence they come have indefinitely multiplied, and honors are scattered so promiscuously that the "faculty" has lost its attraction. These, the two great charms of medical announcements of former days, have been worn out. The new attraction is the "higher medical education" dodge, and its universal appearance serves to demonstrate that even medical college managers can avail themselves of the varnish of demanded improvement to dispose of their ancient wares. They can advertise their shop-worn articles as of the present style and of

fresh manufacture, as easily and promptly as an old clothes dealer.

We have before us two of these announcements, so contrasted in character, yet so illustrative of the motive powers of classes of medical colleges, that we have thought the best interests of the profession would be served by giving them special publicity.

The first is the annual circular and catalogue of the college of Physicians and Surgeons, Keokuk, Iowa, 1879-80. Of this institution, J. C. Hughes, M.D., is President of the Board of Curators; J. C. Hughes, M.D., is Professor of the Institutes and Practice of Surgery and Surgical Clinics; J. C. Hughes, Jr., is Professor of Anatomy and Minor Surgery, and J. C. Hughes, M.D., is Dean. From J. C. Hughes, M.D., Surgeon in charge of the Medical and Surgical Infirmary and Eye and Ear Institute, Keokuk, Iowa, full particulars of the C. P. & S. of K., I. may be obtained.

Omitting the architectural display, and the faculty save and except J. C. Hughes, M.D., who would not be pleased with such an omission of the name of J. C. Hughes, M.D., we would be pleased to have our readers glance at the higher medical education business as done by the C., P. & S. of K., I. We quote from the circular of J. C. Hughes, M.D., on that score:

HIGHER MEDICAL EDUCATION.

The demand which now exists, both in and out of the profession, for a more thorough training of medical students before their admission as practitioners to the responsible duties of the profession, is a matter of such deep interest to the schools at the present moment, that we, with many other regular colleges, have lengthened the course of instruction to twenty weeks, and we do now, and will in the future, most heartily endorse any move on the part of colleges or teachers to that end.

While the college still adheres to the old established custom of American Medical Colleges of only requiring two full courses of Medical Lectures and three years study before becoming candidates for graduation, the Trustees and Faculty endorse the following recommendations of the Convention of American Medical Colleges held at Atlanta, Georgia, June, 1879:

"First, That all medical colleges should require attendance upon three regular courses of lectures, during three separate years, before admitting students to become candidates for the degree of M.D."

"Second, That all medical colleges should require, before admitting students to matriculate, a preliminary examination; such examination to embrace, at least, the elements of the physical sciences, in addition to a fair English education."

To meet the above the Trustees of this Institution have established a graded course. Students entering the College can select one of the two courses as may best suit their tastes.

The Faculty of the College of Physicians and Surgeons is composed of able and experienced teachers—men who are engaged in the active duties of the profession, and able to instruct the student practically, and by lectures without notes or manuscript. Experience has proven the great advantage of unwritten lectures over those written and read before the medical student.

There is a peculiar flavor of a too much ripeness in the distinction between "adhering to the old established custom" and "endorsing the following recommendations of the Convention of American Medical Colleges, held at Atlanta, Ga." A burglar

recognizes this distinction when he *adheres* to his old established custom and everything else within his reach, while he *endorses* the last encyclical.

As to the cost to the student, the following quotation should satisfy the most exacting penny worshipper :

College fees are moderate, boarding, fuel and lights cheap, rooms to rent at moderate prices ; and if students wish to practice economy they may bring their entire expenses within the bounds of \$100, and in no case should it exceed \$150. We have no preliminary term of two or three weeks, with a lecture or two a day, offering extra inducements to students during the early part of the session, to form outside acquaintances for the purpose of dissipation and extravagance, in addition to the payment of two or three weeks' board.

The plain inference from which is that foreign influence will not be tolerated in the matters of dissipation and extravagance. The *inside* arrangements will be found sufficiently comprehensive.

This institution, the C. P. and S. of K., I. has a self-acting graduation attachment of a new design ; theses are dispensed with, but satisfactory evidences of literary qualification must be presented.

Finally the circular adds in *brevier* :

The cost, including traveling expenses, board and lodging, fees for the entire course of lectures at the College of Physicians and Surgeons at Keokuk, is less than the expense of lectures *alone* at any other well organized Medical School in the United States.

It may be that "distance lends enchantment to the view," but we must conclude from the cheap and seductive presentation made in the circular that the C. P. and S. of K., I. will prove an inestimable blessing to agriculture and mechanics, by attracting many indolent young persons to the study of medicine.

Enough of THIS. THAT is the Twenty-third Annual Announcement of the Portland School for Medical Instruction, Portland, Maine. The title, "school," gives us a first surprise, succeeded by a greater, when we read "Instructors." An institution for medical instruction without the "College" and "Faculty" attachment is a sufficient cause for fright. Yet such an institution exists.

The announcement contains the following:—

ENTRANCE EXAMINATION.

The experience of the past four years has confirmed the instructors in the opinion that a certain amount of preliminary education should be insisted upon in applicants for admission. They feel that to encourage a person to pursue a course in medicine who has little or no previous mental training and is ignorant of those branches which are the proper prelude to medical study, is an act of injustice to the student, of degradation to the profession, and of inhumanity to the community. They are therefore determined to advance their standard of requirements as rapidly as they can consistently with the continued existence of the school. They prefer to have small classes of well prepared pupils who will appreciate their teaching, rather than large numbers, a considerable proportion of whom are poorly qualified for their work, and are consequently a hindrance to the rapid progress of their fellows.

Students will therefore be required to satisfy the instructors that they are possessed not only of a good common school education, but also of such a familiarity with the Latin language as may be acquired by the study of Harkness's Introduc-

tory Latin Book, and of a knowledge of Physics equal to that which may be got from Norton's Elements of Natural Philosophy. The last of graduation from a College, or from a high school or academy whose curriculum requires the study of these books, or their equivalent, will be taken as sufficient evidence of these acquirements; but in the absence of such evidence a written examination will be held, in which the orthography and syntax will be taken into account.

It is our simple intention to bring the claims of these two schools, as presented by themselves, before our readers, that they judge of what influences may be exerted by Medical Colleges upon the profession. We know neither of them, save as their circulars have acquainted us, but we see a striking difference in their models, and will venture that there is a great difference in the products of their labor.

We append an extract from the report of a Committee of the MAINE MEDICAL ASSOCIATION as to the *Portland School for Medical Instruction*.

Hereafter, the requisites for admission to the school will be, at least, the elements of the Latin language and Natural Philosophy, in addition to a respectable knowledge of the ordinary English branches. The effect of this stringency, of course, is to reduce somewhat the number of students, but what is lost to the treasury is amply recompensed in the satisfaction afforded the instructors in doing a good work, where good work will be sure to bring its own good reward. The ranks of the medical profession little need that strength that exists only in numbers. It is, indeed, too true of the past and of the present also, that the less responsible vocations have often been robbed of a very clever plodder to make a very stupid doctor, whose diploma has proved his only qualification for professional duties, and whose work has stamped his diploma a lie. If the standard of medical education is to be elevated, the work must commence at the foundation; none must be allowed admission to the schools by any other way than the highway of moral and mental culture. Our country needs not more doctors, but better ones—not more high-sounding titles, but more large minds made rich by long, thorough, exact culture.

The number of students in attendance in the class of 1877, was twenty-five. Nearly one-third of this number were college graduates, and about one-half had had more or less college discipline. We were well pleased with the appearance of the class, both for the zeal manifested in the various departments of study, and for proficiency. Thoroughness was a notable characteristic.—*Transactions Maine Med. Ass.*, 1878.

Of THIS and THAT, we have disposed. The other, your favorite neighboring college's circular, we commit to your care. Which does it resemble most?

NEWSPAPER DOSES.

We are always favorably impressed with the receipt for the cure of various diseases seen from time to time in the newspapers. They are always so reliable, so authoritative and so very scientific. Even country papers have their scientific or medical column. How much medicine owes to journalistic laymen and retired ministers who have cured themselves with a remedy accidentally discovered while in India or Zululand! This time it is the *Evening Telegram* who quotes the *Les Mondes* as its authority. It states that Dr. Durodie cured a child, seven years old, of croup, by rasping out the larynx with a whalebone

probang, sponge tipped. The finger being passed to the "upper laryngeal opening," a probang is passed, supposably into the larynx, and worked up and down several times, thus irritating the vocal cords to reflex action and breaking up and removing much false membrane. There are enough asinine laymen left, since the last advent of the fool catcher, to try this, and probably with marked success. Indeed, after several trials, we predict that they will become sufficiently proficient to remove one or more vocal cords, or create a short cut into the trachea. This however, is a small matter. We are inclined to think that the average editor of the scientific column of a newspaper has considerable false membrane in covering the cerebral hemispheres—exerting marked pressure on the convolution controlling common sense, discretion, medical knowledge and modesty.

ABOUT BOOKS.

A Text Book of Physiology; by J. Fulton, M.D., M.R.C.S., Eng., &c.; Professor of Physiology and Sanitary Science in Trinity Medical College, Toronto &c., 8 vo. pp. 500. Philadelphia, Lindsay & Blakiston, 1879.

In his preface to this, the second edition, the author says that, "notwithstanding the number of most excellent books on Physiology published, a well-digested text-book on this subject, adapted to the wants of the advanced medical student and the general practitioner, is still a desideratum in medical literature;" a statement which no one, who has attempted to derive a knowledge of this science by the aid of books alone, will be tempted to deny. The writing of a good text-book, which shall be neither an elaborate scientific treatise, nor yet a mere dry, uninteresting statement of facts, is an undertaking which requires the exercise of many and various powers of the mind. The would-be author must, of course, be thorough master of the subject himself, intimately familiar both with the data and the literature of his theme; must have patience and perseverance to collect, collate, compare, and revise the results of his own researches and those of others; and lastly he must have the faculty of discriminating between the important and unimportant, the leading and subordinate, and of arranging it all so that the reader may follow his train of thought and grasp his meaning without being compelled to infer from similar facts the general principle, or to deduce from a general principle the application to a particular case. The great trouble with most of our text-books on physiology is that their authors, as a rule, have been at the same time investigators and, sometimes only in their own opinion, sometimes also in that of others, discoverers as well, and with such there is the natural tendency to give undue prominence, both in place and space, to their own labors or theories. This fault cannot be laid at the door of Dr. Fulton; if he has any hobby or pet-ism, no

hint thereof is to be found in his book; and he has evidently borne constantly in mind that he was writing to convey instruction and not to advance his private opinion. His method is eminently rational. After describing the proximate principles, he discusses the primary forms of tissue, believing, as he says in the preface, that just as anatomy is the keystone to medicine, so histology is the keystone to physiology. He next takes up the simple tissues and then proceeds to a consideration of the different processes of nutrition, etc., and of the organs concerned in them. And in the treatment of these matters, his method again is clear and logical. Thus he divides the digestive process into seven different stages: prehension, mastication, insalivation, deglutition, chymification, chylification, and defecation; and then discusses each of these in turn; its mechanism, object, and any peculiarities arising from natural or accidental causes. In this way he brings in the discussion of the different organs, not merely as parts of the body or from an anatomical stand-point, like so many text-books, but as factors of a vital process or from a physiological point of view. Indeed the author has so studiously endeavored to exclude all anatomy not essential to the proper understanding of the physiology, that he has in some cases fallen into the opposite error and not given enough. Thus he pays little or no attention to the origin of the cranial nerves and gives their distribution in such very general terms that the understanding of their functions becomes merely a matter of memory—a grave fault in any method of teaching, as it always is a much more reliable method of learning, and especially in scientific matters, to reason out the conclusions than to recollect them as so many abstract facts.

It is, of course, to be expected, that this work should contain the results of the latest researches, nor does it disappoint us in this respect. Thus it gives, in brief, the results of Ferrier's experiments on cerebral localization; teaches that the pancreatic juice contains as a rule about twelve parts of pancreatine per thousand and not ninety, as is commonly taught, the latter quantity being only met with in extreme cases,—a fact which will explain the beneficial effect of small doses of pancreatine in imperfect intestinal digestion; the solitary glands he regards as being merely the first row of mesenteric glands situated in the walls of the intestine; and he sums up that much-vexed question, the function of the liver, in the following words: "The liver secretes a complex fluid, the "bile," which is poured into the duodenum. Its coloring matters and some of the fatty matter and salts are carried off in the fæces, forming the natural purgative of the body and by virtue of its antiseptic properties, preventing decomposition of the fæcal matters. Its fat and bilin are in a great part reabsorbed. It also assists in the complete digestion of those parts of the food which have escaped digestion, as starch and fatty matters. It forms sugar and fat in the circulation, independently of the substances in the food. It eliminates carbonaceous matters; some directly, as the coloring matter, small quantities of fat and bilin; others indirectly, as fat, sugar, and bilin, which pass into the lungs, and are converted into carbonic acid and water by the oxygen."

Nor has the author failed to bear in mind, that, though his work is on physiology, it is "a text-book of physiology, for the use of students of medicine;" he has accordingly, after giving the construction, composition, function, etc., of any organ or fluid, devoted some space to consideration of unusual physiological or abnormal pathological conditions which influence its character; an addition which does not detract from its scientific worth and increases its practical value. In fact, this work, as a whole, answers more nearly than any book which we have met with, the desideratum of a well-digested text-book of physiology.

SELECTIONS FROM JOURNALS.

VICARIOUS (?) ENLARGEMENT OF THE PAROTID GLAND.

BY

CHAS. R. KNAPP, M.D., Ph.B., WYOMING, PA.

Miss M., æt. 20, consulted me in November, 1877. The following is the history of the case:

The patient was a blonde, chlorotic and nervous. She showed acne upon the face. She had been in poor health for some time, was weak, easily wearied, appetite poor, menses scanty, light-colored, and attended with pain in the right ovarian region, ceased in a day or two, and were followed by the appearance of a tumor on the right side of the face (parotid region), which increased in size, without causing pain or inconvenience, until the next monthly period, when, upon the ovaries taking on their function, the enlargement quickly subsided. This had occurred for several months previously.

Upon examination, thoracic viscera were found normal, and likewise abdominal and pelvic (so far as examination was allowed), save a slight tenderness in right ovarian region. The parotid gland was enlarged to a noticeable extent, but was painless. The ear and throat, upon examination, showed nothing wrong.

The patient was kept under observation for five months, during which time the parotid enlargement was found to subside and recur as above mentioned. She was placed upon tonic treatment, under which she improved in general health, the menses became more free and full, and after the monthly period of May, 1878, the parotid enlargement did not recur, and had not recurred up to January, 1879.—*Phila. Med. Times*.

SYME'S AMPUTATION OF THE ANKLE-JOINT.

BY

JOSEPH W. THOMPSON, M.D., PADUCAH, KY.

I was requested by Dr. William Wilson, of this city, to see Henson Sullivan, colored, suffering with chronic inflammation of a strumous character. On examination, we found extensive caries of the metatarsal bone of the great toe. Dr. Wilson gave him ether, and I cut down on the bone and scraped off most of the ulcerated portion. For a time he seemed to be better, but the disease progressed, and all the metatarsal bones of that foot became carious and necrosed. Bilioth in his excellent work on surgical pathology, states that if one metatarsal bone becomes necrosed, all the others of that foot are likely to take on the same disease. After being confined to his room for several months, embracing the extremely hot weather of last summer, he consented to have the foot amputated. When the operation was performed he was much debilitated, from long-continued suppuration, deficient nourishment, and protracted confinement. Added to these was the most intense mental excitement through fear of the operation. As you are aware, the colored race generally are very liable to become excited with the idea of a surgical operation. These combined causes had considerably lowered his vitality, and his being thoroughly strumous and deficient in stamina, peculiar to his race, made him a very unfortunate subject for an operation.

On the 16th of February last I performed Syme's amputation, Dr. Wilson giving the ether; present, and assisting,

were Drs. Brooks, Davis and Gardner and my student, M. Rosenthal, all of this place. It would be useless to describe this amputation, as it is found in all the leading works on Surgery. I performed the amputation as described by Mr. Syme, except that I did not make the opening through the posterior part of the flap for drainage. As before stated, he was very feeble when the operation was performed, therefore rallied from the shock slowly, and for ten or twelve days his recovery seemed doubtful. On the third day symptoms of blood-poison developed. I immediately removed most of the sutures, and with a Davidson's syringe injected the stump with a pint of warm water containing twenty-five drops of carbolic acid, which was repeated daily for ten days. This injection thoroughly cleansed the stump and kept up sufficient drainage. Improvement was manifest from the first injection, and he gradually recovered, resulting in a perfect union of the flap, with a good stump.

I am very sure that if we had permitted the sutures to remain for a longer time, and had not adopted some course to have cleansed the stump and invited free drainage, the patient would have succumbed to blood poison. My experience satisfies me that very few sutures should be used in bringing together flaps in amputation. If you do not wish to treat the stump as an open wound, the flaps can be sufficiently supported with the improved rubber adhesive plaster. Injecting the wound with warm carbolic acid solution in this case, and the well-established good effects of this treatment of suppurating wounds, induces me to call the attention of our society to it in the treatment of stumps with an unhealthy discharge.

REMARKS.—Dr. Stephen Smith, of N. Y., in his contributions to the Memoirs of U. S. Sanitary Commission, gives the statistics of this amputation as fifty per cent. less fatal than amputation of the leg in its lower third, and a little more than one-third as fatal as all other amputations of the leg and foot. When a surgeon can give a patient so much as fifty per cent. advantage for his recovery by making an ankle-joint amputation instead of amputation of the lower third of the leg, it is unquestionably his duty to afford the patient that advantage. The true surgeon considers seriously the bearings in the case, and performs the operation that experience teaches will least endanger the patient's life, if that operation will meet the requirements.

Syme's amputation is regarded by some practitioners as being difficult of performance. If the plain rules given by that distinguished surgeon are observed, it is not the least complicated. The most troublesome and delicate part of it is in dissecting the flap from over the heel so as to avoid wounding the posterior tibial artery before it divides into planter branches, and making incisions through the flap. The former can be avoided by keeping the cutting surface of the knife close to the bone, and the latter by careful dissection.

Mr. Syme states that as a rule, when union of the flap does not occur, and a good stump is not the result, the fault is not in the operation, but with the operator.

Not only in necrosis of the bones of the foot is this operation so well suited, but also in compound dislocation of the ankle-joint. Experience teaches that compound dislocation of that joint most generally requires amputation. It is true, there is an occasional recovery without the loss of the limb, or excision, but that is the exception and not the rule. The surgeon seldom, if ever, meets with a case that demands more skill and judgment than the proper management of a case of compound dislocation of the ankle-joint. It is more serious than a compound fracture, because it requires greater power to force the broad, smooth articular surface through the lacerated tissue than the sharp points of bones, and there is so much more tension of the muscles and nerves. This tension of the tissues, continuing after the dislocation has been reduced, frequently causes gangrene of the limb to result. It is my opinion that Syme's amputation at the ankle-joint is entitled to more consideration by surgeons than it generally receives. A careful investigation of the article of Dr. John A. Wyeth, on the surgical anatomy of the tibio-tarsal articulation, *American Journal Medical Science*, April, 1876, will prove very interesting.

The standard works on anatomy describe the calcarean arteries as branches coming from the posterior tibial. Doctor Wyeth made 87 careful dissections, finding that the calcarean branch, which gives the principal blood-supply to the posterior flap, is derived mostly from the external planter. "Résumé of tabulated dissections shows, out of a total of 80 cases, in 38 there was not a single calcarean branch, derived above the terminal bifurcation of the posterior tibial artery, while in

all these 80 cases, from one or more good sized calcarean arteries were derived from the external planter within one and a quarter inches of its origin.

"T. S. counts the number of calcarean branches derived from the posterior tibial was 51; in 80 cases the number of calcarean arteries derived from the external planter was 221."

It is thus evident that the principal blood supply of the posterior flap, in Syme's amputation, comes from the calcarean branches derived from the external planter; not, as heretofore taught by anatomists, directly from the posterior tibial.

Dr. Wyeth very clearly proves that operative surgery of the ankle-joint, based upon the teachings that the arterial blood-supply of the posterior flap, in this operation, comes directly from the posterior tibial, is an error, and accounts, to a great extent, for the failures to get good flaps and serviceable stumps. Erichsen, Lister and Hamilton direct, in carrying the incision over the heel, that it should be carried well back over its point. When we appreciate the source of the principal blood-supply of the posterior flap, we can understand the danger to that arterial nourishment, by making the incision approximate so nearly the point of the heel as those distinguished surgeons advise.

The incision recommended by Professor Gross is, therefore, to be preferred, for the reason that it is more anterior, and less liable to interfere with the constant blood-supply of the inferior flap, "the calcarean branches of the exterior planter."

The operator should avoid making a redundancy of flap, but should not carry the incision too far back over the heel, as by so doing he would endanger the blood-supply of the posterior flap. — *St. Louis Clinical Medicine and Obstetrical Science*, A. S. 1874.

ON TWO CASES OF FRACTURE OF THE PELVIS.

OSCAR J. COSKERY, M.D.,

Professor of Surgery, College of Physicians and Surgeons, Baltimore, Md.

CASE I.—James Thornton, colored, aged 20, a laborer, was admitted into the City Hospital on Oct. 13th, having been struck over the lower portion of the back by the bumper of an engine, half an hour before. Upon examination it was found that the left lower extremity was helpless, there was a distinct deformity of that side of the pelvis, and, upon raising the left leg and thigh, crepitus was plain. A diagnosis of fracture of left ilium near sacrum was made.

Oct. 14.—Urine was obliged to be drawn off nearly every half hour, and was phosphatic. A bandage was applied around pelvis and rest ordered.

Oct. 18th.—Catheter has been steadily used since accident (patient having no control over bladder), and the bladder was washed out with carbolyzed water (1 to 50). The temperature and pulse have been about normal.

The following table will show the average temperature and pulse for next 10 days.

October	20th,	Temperature	101°	Pulse	140,	Respiration	28.
"	21st	"	98°	"	94,	"	24.
"	22d	"	101°	"	120,	"	24.
"	23d	"	99 2/3	"	112,	"	22.
"	24th	"	99	"	100,	"	20.
"	30th	"	98 8/10	"	90,	"	18.

The boy emaciated greatly, sometimes refusing his food entirely, but was generally cheerful, and anxiously expecting to get well.

Nov. 7th.—General condition same as at last note, but patient is very weak and he complains of pain over sacrum.

Nov. 10th.—A bed sore has appeared over right side of sacrum, and has enlarged rapidly, laying bare this bone and the right ilium, and the patient has a troublesome cough. He is weak and emaciated although taking as much cod liver oil as his stomach would bear.

Patient improved, however, and on Nov. 29th a Physic's splint was applied upon left side. Upon turning him over to show bed-sore to the class a longitudinal fracture of the right ilium was for the first time discovered.

Dec. 8th.—Patient improving.

" 22nd.—" on crutches.

Jan. 14th.—Patient walking without even a stick, and rapidly getting well, but with deformity upon right side.

Jan. 30th.—Walking well, and sent to Bay View.

CASE NO. 2.—Peter M., aged 49, a German tailor, was knocked down and run over by a heavy team on Dec. 13, 1878,

about 10 P.M. Was examined by three physicians and pronounced to be dead-drunk. Was taken to station-house at about 5 A.M., on the 14th December. Was brought to the city hospital by the police, because he said he could not pass his water. A cathartic was introduced by the house-surgeon, and about two ounces of pure blood, and no urine, withdrawn.

On putting him to bed, a large bruise and abrasion was found over the outer side of the middle third of left femur, and distinct movement, and crepitus felt over left ilium near the crest. The patient was more comfortable when he lay upon either side than when upon his back, and he kept his knees constantly flexed. The desire to micturate is constant but beyond that the patient expresses himself as quite comfortable, except when touched over lower portion of abdomen. There was some pain and swelling in inner side of left thigh, close to perineum, but there is no hardness or swelling of the perineum proper. The catheter was again introduced with very little difficulty, at my visit (8 A.M.), and only a few drops of fluid, not bloodstained, and supposed to be urine, were withdrawn. The patient was very thirsty, and evidently rallying from shock. 6 P.M., no urine has been passed naturally, and on again introducing catheter, about one ounce of bloody fluid was withdrawn, urinous in odor. He complains of pain upon the slightest pressure being made over the right iliac region. Prefers to lie upon the back, slightly turned towards left side, pulse 130, hard and small, respiration 20, still complains of pain in left thigh and over sacrum. The catheter was tied in, but on account of the great irritation, (efforts at urination), and as nothing escaped through the free extremity it was withdrawn at the expiration of three hours.

Dec. 15th, 10 A.M.—Has slept tolerably well, and taken a light breakfast with some appetite. The catheter, introduced with the greatest ease, again drew off about one ounce of bloody fluid, and patient says he would be all right if he could make water. Abdomen is swollen and tender. Neither the finger in the rectum, nor palpation over the hypogastrium, could detect any tumor. A line of ecchymosis, an inch and three-quarters in breadth, extended from over the left ilium downwards and forwards as far as the horizontal ramus of the right pubis, and at the latter point the bone was thought to be irregular. When the patient is perfectly quiet he does not seem to suffer much. His pulse is 130 and weak, he is vomiting constantly, and he has hiccough. He has been taking opium steadily ever since the injury.

6 P.M.—Vomiting has been so constant to-day that hypodermic injection of morphia ($\frac{1}{4}$ gr.) instead of by the mouth produced a good effect. The inner side of the left thigh is now quite oedematous, but the perineum is not. All to-day the respirations have been sighing, and at short intervals the patient screams out with pain, which he refers to the inner and upper portion of the left thigh, and to the neighborhood of the sacrum—says he feels better, but his pulse can scarcely be felt, and counts 120, respirations 21; temperature 102°; abdomen very tense; no borborygmi. He has passed a few drops of fluid, not bloody, from his penis in his frequent efforts at expelling urine.

Dec. 16th, 10 A.M.—Ecchymosis and swelling of penis and scrotum. Patient has slept some, and does not seem to have so much pain in back or thigh. Belly more swollen, but not very sensitive, and the vomiting is not so persistent. Nothing has come through penis since last note, and two ounces of bloody fluid, slightly ammoniacal in odor, was withdrawn through catheter. Pulse 120; respiration 21; temperature 100°.

6 P.M.—The only change noted is that the patient dozes off every few minutes, and is evidently not clear in his mind. General condition about the same as in morning. A consultation to-day decided to do nothing.

Dec. 17th, 9 A.M.—Patient did not sleep well last night, and is now decidedly queer in his mind; sweating profusely. Singultus and vomiting constant—sclerotics yellow—hands and feet blue and cold. Respirations 28, sighing and irregular. Pulse, taken over the heart, 128; temperature in mouth, 100°. Two ounces of very ammoniacal and bloody fluid drawn off through catheter. Belly greatly swollen.

6 P.M.—Has been vomiting persistently, but hiccough seems to have been partially controlled by compound spirit of ether every hour. At 5 P.M. an attack of acute pain required a hypodermic injection of $\frac{1}{2}$ gr. morphia. Radial pulse can now be counted 130. Vomiting of bilious matter, and patient has not attempted to take anything but ice all day. Two ounces of very ammoniacal blood fluid withdrawn by catheter.

10 P.M.—Radial pulse 130; patient very restless and delirious. Twitching of muscles of face, and constant thrusting out of tongue. Again complaining of pain for which another hypodermic injection was given.

12 Midnight, sleeping quietly, but can easily be aroused. Respiration 26; pulse at wrist 130; countenance flushed and anxious; sweating profusely.

Died quietly, and somewhat suddenly, at 3 A.M., Dec. 18, 1878. In spite of every effort no post-mortem was allowed, and, although on this account, I know the case is incomplete, still, there are some points of clinical interest that I think can be intelligibly discussed. First, I would state that the fracture of the left ilium (transverse) was easily made out; that of the right pubis, suspected, the original diagnosis was fracture of the pelvis with rupture of the bladder. The rupture was disputed in the consultation, the fracture agreed with. My reasons for suspecting rupture of the bladder were these: The line of ecchymosis mentioned above started from over the fractured hip-bone, ran directly across the hypogastrium, and ended over the spot where the pubis was thought to present an irregularity. Secondly: The man had emptied his bladder, he thought, about one hour and a half before the accident, but he had beer drinking beer, and continued to do so to such an extent, as to be blind-drunk at the time of receiving the injury, even if his statement was correct, which I doubted. Thirdly: Though the man, up to his death, was almost constantly trying to void urine, with the one slight exception mentioned in P.M., note of Dec. 15th, not one drop escaped that way; and this exception was doubtful. Fourthly: The fact that only blood, or bloody fluid, towards the last of the case, distinctly ammoniacal, was gotten through the catheter. (I should state here that the ease with which the catheter was introduced each time left, no doubt, upon my mind, that the instrument entered the bladder—doubted by one of the consultants.) Fifthly: The cause of death, and the symptoms during life, pointed distinctly to peritonitis. Sixthly: The seat of the most severe pain, which was at the point where the bag must have burst, had it been produced as I believe it was.

Another interesting clinical fact, I think, is the length of time the man lived—one hundred and one hours. Another point is, the amount of fluid that ran through the catheter altogether during that time—less than twelve ounces, and of that, certainly one-half blood.—*Maryland Med. Journal*, Aug., 1879.

FORMULARY.

The following formula I have sometimes used to fulfil the twofold indication of relieving nausea and restraining the bowels in the acute stage of gastro-enteritis.

R Bismuth ammon. cit.....	3 ss
Acid carbolæ.....	gtt. ij
Liq. atropiæ.....	gtt. ij
Tr menthæ.....	gtt. viij
Tr opii. deoderat.....	gtt. x
Syrup. acetiæ.....	3 ij

Mix. Sig.—A teaspoonful every two or three hours.

When the more violent symptoms have abated I frequently prescribed the following to advantage:

R Bismuth sub. nitrat.....	3 i
Lactopeptine.....	ss
Pulv. contæ co. c. opii.....	ss
M Ft. chart No. x.	

S.—One three or four times daily.

When the evacuations are frequent, small, slimy or bloody, in other words, dysenteric, I find occasional use of a castor oil mixture to very great advantage, thus:

R Ol. ricini.....	3 i
Tr. opii deoderat.....	gtt. vi
Syrup. acaciæ.....	3 i
Tr. menthæ.....	gtt. ij

Mix. Sig.—A teaspoonful every two hours till the stools assume a healthier character, after which the bismuth and lactopeptine powders may be resumed, with or without the comp. chalk and opium, as the condition of the bowels may indicate.

A. N. TALLRY, M.D.,
Columbia, S. C.

Basham's iron mixture, with the addition of fractional doses of strychnia, will be found very admirable in its effects. There are so many indifferent recipes for making this celebrated mixture that I shall here give the one which seems to me to be the best:

R Tinct. ferri chloridi.....	fl. 3 iij
Acid. acetic. diluti.....	fl. 3 ss
Liquor. ammoniæ acetat.....	fl. 3 iijss
Curacoe.....	aa fl. 3 i
Syrupi simplicis.....	fl. 3 viij
Aquam, ad.....	fl. 3 viij

M. Sig. One tablespoonful after each meal.

The following formula makes another very elegant and generally useful preparation of iron:

R Tinct. ferri chloridi.....	fl. 3 iij
Acid. phosphorici diluti.....	fl. 3 iij
Spts. limonis.....	fl. 3 i
Syrupi simplicis.....	fl. 3 iijss
Aquam, ad.....	fl. 3 vj

M. Sig. One tablespoonful after each meal.

The dilute phosphoric acid is added both because it is a valuable nerve-tonic and because it has the property of disguising the styptic taste of the iron; so much so that children readily take this mixture.

There are two other tonic preparations which we prescribe very frequently in the Hosp. of the Univ. of Pa., and with capital results. One of them is Bland's pill, which Niemeyer extols so very highly:

R Pulv. ferri sulphat. exsiccata.....	aa 3 iij
Potass. carb. puræ.....	q. s.
Syrupi.....	q. s.

Ut fiat massa dividenda in pilulas, No. xlviij.

During the first three days one pill is to be taken after each meal. On the fourth day four pills are taken during the day, on the fifth day five pills, on the sixth day six; that is to say, two pills after each meal. For three days more six pills are taken daily; then the dose is to be increased by one pill daily until three pills are taken after each meal. On this final dose the patient is kept for three or four weeks as the case may be. In stubborn cases I have occasionally run up the dose to the number of five pills thrice daily, and have seen no other bad effects from it than a feeling of fulness in the head. This immunity is probably owing to the conversion of the iron sulphate into a carbonate.

The other preparation is a valuable alterative tonic, for the formula of which I am indebted to my friend Dr. A. H. Smith:

R Hydrarg. chloridi corrosivi.....	gr. i-ij
Liq. arsenici chloridi.....	fl. 3 j
Tinct. ferri chloridi.....	aa fl. 3 iv
Acid. hydrochlorici dil.....	fl. 3 iij
Syrupi.....	fl. 3 vj
Aquam, ad.....	fl. 3 vj

M. Sig. One dessertspoonful in a wineglassful of water after each meal.

Anemic and chlorotic patients will fatten and thrive wonderfully on this mixture. I call it the Mixture of Four Chlorides. It should not be given for a longer period than two weeks at a time.

WM. GOODELL, M.D.

NEWS ITEMS AND NOTES.

American Academy of Medicine.—The fourth annual meeting of the American Academy of Medicine will be held in the rooms of the New York Academy of Medicine, 12 West Thirty-first street, New York, commencing Tuesday, September 16th, at three o'clock P.M.

The following programme has been determined upon:

Tuesday afternoon: Organization, election of members, unfinished business, general business.

Tuesday evening, at eight o'clock: Address by the President, Lewis H. Steiner, A.M., M.D., of Frederick, Maryland, on "The Preparatory Education most needed by the Medical Student."

Wednesday, 10 A.M.: General business. Paper by Elisha Harris, A.M., M.D., of New York, on "Hygiene and the Higher Researches of Science."

Election of Officers.

Introduction of President elect.

The following questions were submitted to the "honorary" of the class of 1879, of the Med. Dept. of the University of Vermont, at the competitive examination for the Faculty Prizes.

ANATOMY.

1. Enumerate the muscles attached to each os innominatum; state the action of the different groups and the motor nerves that supply the separate muscles.

2. Enumerate the muscles of the larynx and the action and nervous supply of those concerned in the production of voice.

PHYSIOLOGY.

1. Describe the foetal circulation and compare the foetal and adult circulation in the liver.

2. Histology of the kidney.

CHEMISTRY.

1. Give the qualitative and quantitative tests for sugar in the urine.

2. Give the method of the formation and the properties of ethyl oxide (with equations).

MATERIA MEDICA.

1. The alkaloids, their doses and their therapeutical indications.

OBSTETRICS.

1. Describe operation for the radical cure of proclivitas uteri.

2. Give the mechanism of labor in the right posterior sacro-occipital position of a breech presentation.

SURGERY.

1. Describe the fractures which are liable to be mistaken for dislocations.

THEORY AND PRACTICE.

1. Symptoms of the first and second stages of pneumonia.

2. The abnormal sounds of the heart and their pathological significance.

The Royal College of Physicians of London has done itself the honor of associating itself with the name of Charles Darwin, by conferring upon him the Baly medal for Physiology. The President of the college, in presenting the medal to Mr. Darwin, at the meeting on June 26th, said that he felt that there were occasions when silence constitutes the highest compliment. He should, therefore, only ask Mr. Darwin to accept the medal which had been awarded to him by the college. The award formed a fitting pendant to the Harveian Oration, which had just been delivered by Dr. Wilks, in which the orator had impressed upon the Fellows the necessity for the physician to follow Harvey's advice and "search out the secrets of nature." No one has followed this advice more fully than Charles Darwin.

The Empress of Germany has offered a prize of 2,000 marks (\$500) for the best essay on diphtheria. The conditions are that the writer is to bring forward important new facts as to the essential nature of the disease, especially with regard to the infectious matter which propagates it, its dissemination, and the means for arresting its progress. The essays may be written in English, German, or French, and be sent to Prof. V. Langenbeck, Berlin, N. W., 3 Roonstrasse, on or before December 15, 1880. The committee of award consists of Professors Klebs, of Prague; Liebreich and Virchow, of Berlin; Von Nögeli and Oertel of Munich; and Thiersch, of Leipzig. As is usual, a motto is to be attached, and a similar one in a sealed envelope.

Alexis St. Martin, the fistula in whose stomach has done so much for physiology, still lives. He is 78 years of age and the wound is still open, but this fact has evidently never impaired his virility, as he reports himself the father of twenty children. He has always been a hard worker and has never suffered from indigestion.—*Mich. Med. News.*

The class of the Medical Department of the University of Vermont was the largest ever assembled, numbering 151. The graduates numbered 49. Nearly fifteen per cent. of the candidates failed to pass. This speaks well for the institution.

Dr. H. F. Lyster, of Detroit, has been appointed to fill the chair of Practice of Medicine (Regular) at the University of Michigan, during Dr. A. B. Palmer's absence in Europe. He will receive a yearly salary of \$2,200.

A training-school for nurses has been established at Washington, D. C. It has a full corps of lecturers, and is otherwise fully organized for its work. There are now nine such schools in the United States; three in New York, three in Boston, one in Philadelphia, one in New Haven, and one in Washington. Queen Victoria has instituted the order of St. Katharine as a reward of merit for nurses of long standing and good conduct. Three have already been decorated.—*Sanitary Engineer.*

Dr. Clinton Wagner of this city has been appointed Professor of Diseases of the Throat in the Med. Dept. of the University of Vermont.

The Articulations.—The following ingenious arrangement of the names descriptive of the various articulations, communicated to us by Dr. James L. Little, Prof. of Surgery in the University of Vermont, and of Clinical Surgery in the University of New York.

Enarthrosis, bone to bone.
Femur, Acetabulum;
Ginglymus, the hinge I see,
Forwards, backwards swings the knee.
Arthrodia, near the end,
Glide along the foot and hand;
Synchondrosis, we allege
Calls for costal cartilage;
Syndesmosis—ligament,
Binding bone to bone is meant.
Syssarcosis—lower jaw,
Flesh from ribs to scapula.
Suturo, a stitch withal,
Coronal, lambdoid, sagittal.
Harmonia—Tippetary,
Rhymes with supramaxillary.
Schindylesis—ploughing done—
Vomer in the sphenoid bone.
Gomphosis sets all things right;
Tooth in socket pretty tight.

NAVY NEWS.

CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING FRIDAY, SEPTEMBER 5TH.

Sept. 1. Asst. Surgeon Wm. R. DuBose detached from the Wabash and ordered to the Naval Hospital, New York.

Sept. 1. Asst. Surgeon S. H. Dickson detached from the Naval Hospital, Norfolk, and ordered to the Naval Hospital, New York.

Sept. 1. Asst. Surgeon C. W. Deane detached from the Naval Hospital, Chelsea, and ordered to the Rec'g Ship Wabash, Boston, Mass.

Sept. 1. Asst. Surgeon, B. F. Rogers detached from the "St. Mary's" and waiting orders.

Sept. 1. Medical Inspector A. L. Gihon, promoted to Medical Director from August 20, 1879.

Sept. 1. Pd. Asst. Surgeon B. S. Mackie, promoted to Surgeon from August 20, 1879.

Sept. 3. Surgeon J. W. Coles detached from Medical Examining Board and waiting orders.

Sept. 3. The Naval Medical Board for the examination of candidates for admission and promotion, dissolved.

Sept. 3. Asst. Surgeon E. H. Marsteller detached from the "Mayflower" and waiting orders.

Sept. 3. Asst. Surgeon J. E. Gardner detached from the "Standish" and waiting orders.

Sept. 3. Surgeon B. S. Mackie detached from the "St. Louis" and waiting orders.

Sept. 5. Surgeon M. L. Ruth detached from the "Constellation" and ordered to the Naval Academy.

Sept. 5. Pd. Asst. Surgeon Robt. Whiting detached from the "Constellation" and waiting orders.

Sept. 5. Pd. Asst. Surgeon Wm. A. Corwin detached from the Naval Academy and waiting orders.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and contents of the publication, should at once remit the amount of a year's subscription. We cannot but take pleasure in supplying our numbers either now or in the future, as we send out our entire edition each week. We ask every subscriber of the present volume to receive this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

A LECTURE ON INFLAMMATION OF THE PLEURA.

Delivered at the College of Physicians and Surgeons, New York.

ALONZO CLARK, M.D., LL.D.

Professor of the Theory and Practice of Medicine.

GENTLEMEN: Inflammation of the pleura differs from that of the arachnoid, of which I spoke to you at our last meeting, from the fact that the exudation is never on the attached surface, but is found directly in the pleural sac itself. If it is serum it will be found first in the most dependent part of the sac. If plastic matter is effused it may be in the most dependent portion, but generally it remains on the membrane from which it exuded, and covers the whole surface. This causes the lung to adhere to the ribs. The respiratory force will cause the lung to move, but it goes with a jump. The organization going on, the adhesion will be more complete and the lung at the end of twelve or fourteen days is completely fastened to the ribs. One form of pleurisy results in the exudation of much lymph with some effusion of serum. This is acute pleurisy. When there is a moderate amount of lymph with a great quantity of serum, it is sub-acute pleurisy, hydrothorax, or pleurisy proper. When there is pus in the pleural cavity as a product of inflammatory action it is called empyema. There is another form associated with a perforation of the lung and the introduction of air, which is called pneumothorax. In any case there is usually inflammation of the entire membrane.

ACUTE PLEURISY.

A very few times in your life will you meet with this form of pleurisy. You will suddenly be called to a patient who has been seized with *intense pain* in his side, which has come on suddenly. If he has been sitting up he is pressing the affected side with his hand to prevent motion of the ribs as far as possible. If he is in bed he will be upon the inflamed side. As a rule pleurisy does not begin with a chill; countenance is pale; pulse is tense and frequent. But you cannot be sure of your diagnosis before you get the friction sound; for the first few hours you will not be able to get this sound, the fibrinous exudation not having had time to form or produce it. This sound is generally double, occurring both with expiration and inspiration, but it may be single. Lænnec compares it to the sound produced by new leather. When this is heard the disease can scarcely be confounded with any other.

This disease by common consent is better controlled by the lancet than any other serous inflammation. Cups with scarifications are to be applied to the affected side, these may be repeated two or three times after proper intervals. When the pain

has subsided, blisters may be applied to overcome whatever inflammation remains. The treatment then must be decidedly antiphlogistic to prevent abundant effusion. There is no occasion for diuretics. Diaphoretics are made use of in the latter stages. Fomentations of warm water and the like may be applied to the affected side. Not much constitutional treatment required. This membrane, in cases which recover, is left and is organized. Contraction of side and shortness of breath will occur in every form of pleurisy. This does not take place until several weeks after the attack and continues for three or four years, during which time the membrane becomes absorbed.

SUB-ACUTE PLEURISY.

In this form there is a large amount of serous fluid with a moderate amount of lymph. The disease was formerly called hydrothorax. It is insidious in its attack and is attended with no pain unless it proceeds from the acute form. You will not probably see these cases until the disease has made considerable progress. The diagnosis will especially be with phthisis from the protracted cough, paleness and emaciation. There will always be a cough which is almost dry, there being but very little expectoration. The character of the expectoration will be different from that of phthisis, in being tough and accompanied by frothy mucus. There is shortness of breath and poor appetite. The pulse is frequent—these are about all the rational signs. But we have the physical signs, which are diagnostic. The disease is almost always upon one side. The pleural cavity contains a *pool of water* and upon this are founded the physical signs. First of inspection. There is a filling out of the intercostal spaces, especially at the lower part of the chest. The ribs are elevated and fixed, not moving in respiration. By measurement we ascertain that the affected side is the largest. There is absolute dulness on percussion as far up as the fluid extends. From the condensation of lung tissue the resonance will be less than natural. In making this examination the ear must be applied as far down as the ninth rib behind. Over that portion of the chest which contains water there will be heard no respiratory sound, and when the chest is full of water no sound can be heard except at the *root of the lung*. Absolute silence in respiration always denotes one of three things—watery effusion, a large tumor, or pneumonia with fibrinous bronchitis. When we have, as in *pneumonia*, *hepatization* we will always get the *respiratory sound* which is *tubular*. This is a diagnostic mark between pneumonia and hydrothorax. When, in carrying my ear up to get the level of the water, I get the inspiratory and expiratory sound, I know I am over the lung, and that the sound is not a conducted one. Another mode of ascertaining the level of the fluid is by listening to the voice. Let the patient count, for this is better than talking. When we reach the level of the fluid, the voice sound which before was distinct and deep, will be full of resonance and in a low key. We shall also, in some cases, get a trembling sound, but upon this I do not rely. These, then, are the principal aids in the diagnosis, and when we get these there can be no doubt but that we have sub-acute

pleurisy. I suppose a lung was never so compressed as not to admit air into the bronchial tubes. This, fortunately, is one of the diseases which we may expect to cure, but not without proper treatment. For a year or two, and very often through life, we shall have deformity of the chest if the effusion has been of any amount, and the case has been at all protracted. This arises from the shrinkage of the affected side after removal of the fluid, upon the principle that "*Natura abhorrat vacuum*," the adhesions preventing the complete restoration of the lung. We are also to notice the effect upon other organs. The heart is pushed to the opposite side of the fluid. The liver is crowded downwards, and once in a great while this organ is displaced.

Since the inflammatory nature of this trouble has been recognized, we have had great success in its management. While, when it was considered and treated as a mere dropsy, it was almost as fatal as phthisis. Being but a mild inflammatory action, it presents but few terrors to the physician, but for its course it will require from two to four weeks, on an average. Very few cases prove fatal.

We are, on the one hand, to subdue the inflammation, and on the other, to promote absorption of the fluid. Bleeding from the arm is unnecessary, but when we are called at an early stage, which is seldom the case, cups will be advisable, repeated as often as necessary. Over recent inflammations cups have great influence, while they do little good in sub-acute and chronic inflammations. As in other sub-acute inflammations, blisters are to be applied, and in doing this select three spots, one being placed on a new spot as the last has healed. Scarcely ever more than three are required. Now come active diuretics, and among these I prefer potass. iod. grs. xxx. per day. If this does not subserve try potass. acet. et inf. digitalis 3 iij to 3 iv per day, or triplex diuretic pill, R. pulv. digitalis, pulv. sallae mer., hyd. chlor. mit. aa grs. j. M. ft. pie noj cap. pil. ter in die, until the effect of the mercury is produced, then try potass. iod. again. In some cases mild counter-irritants, as the ammoniacal liniment, will answer, as in nervous women, but, as a rule, we are not to trust to these. Purgatives and vapor baths sometimes are useful. This treatment will suffice in ordinary sub-acute pleurisy, but when all these measures fail we have but two resources, to do nothing or to use the trocar. Some physicians advise the early use of the trocar, but from fear of changing the serous effusion to pus, I do not like the practice. In some cases we are forced to use the trocar, but beforehand always use medical means, if the patient is not rapidly sinking.

EMPHYEMA.

Here we have the purulent matter instead of or with serum. It is not the grade of inflammation, but the constitution of the patient that gives character to this disease. The patient is apt to have chills and sweats, but we cannot rely upon the symptoms, as they are deceitful. From the greater constitutional disturbance we shall be more apt to call this disease phthisis. Cough is worse with a great amount of constitutional disturbance and *expectoration*. Try the common means in use for the last disease, and if they fail there is but one resource,

viz.: puncture of the chest. Sometimes the pus has a tendency to point, from its being confined, as in an abscess. In these cases, as nature, though the best surgeon, is too slow, we are obliged to help her, in many cases hastening the evacuation of the fluid contents. Now and then, instead of an opening being made through the external intercostal spaces, the pus makes its escape through a perforation through the lung. This is a most unfavorable issue, and such patients usually die. These perforations, in most cases, depend upon a softening down of superficial tubercles. In all cases of empyema we must expect to puncture several times. The practice is to incise the skin, plunge in a trocar and canula, and after withdrawing these instruments, insert into the opening thus made a linen tent, which should be fastened by its free ends to the chest by means of adhesive strips. This tent may be removed every day or two to allow the pus to run out. But I am partial to Dr. Wyman's method, as practiced by Dr. Bowditch, of Boston. It consists in the use of the exhausting pump, and for this purpose I like the ordinary stomach pump. We are to use an extremely small trocar and a common exploring needle as sometimes made, is a good instrument for this purpose, or better still, the aspirator with a fine trocar. Before introducing the instrument it is well to *benumb* the part by firm pressure with the finger. In these cases it is not necessary to use the scalpel as we do when a large trocar is used. After the trocar has been withdrawn the canula may be pressed in some distance as it will not hurt the lung if it touches it. Work the piston slowly. As the opening thus made is small it will close itself to the exclusion of air as soon as the canula is withdrawn. This last method is peculiarly desirable before we have ascertained that the effusion is purulent by a previous operation. When we know that the cavity contains pus I do not know which method is best. We are to continue to draw off fluid until *oppression* is felt at the *sternum*, and to guard against drawing off too much for fear of making a vacuum too great for the comfort of the patient. When the operation is performed in front it must be between the sixth and seventh rib, to avoid wounding the diaphragm. On the side we should choose between the seventh and eighth rib, and in the back between the eighth and ninth rib. I think that iodine injections for the prevention of further effusion of pus are attended with more harm than good. If I were to use injections of any sort I should prefer simple warm water. Tonics are more or less serviceable and this is about all that can be done in the way of treatment. Even under the best management we must expect half of these patients to die.

PNEUMOTHORAX WITH EMPYEMA.

This is chiefly met with in persons having tubercles. The urgency of the symptoms will depend upon the degree of collapse of the lung. By applying the ear to the chest and requiring patient to count we hear, a hollow, ringing, and cavernous sound, which is called amphoric respiration. This metallic ring results either from a dropping of a portion of the fluid or from the bursting of a bubble of air. It resembles the sound produced by dropping a pin

into a wine glass. Succussion sound is produced by shaking the fluid in a cavity which contains air and hence cannot occur in sub-acute pleurisy. It can only occur when air and fluid co-exist in the pleural cavity. The place where the *amphoric resonance* is heard with most distinctness will correspond to the *situation* of the perforation. Pus will only decompose when exposed to air or when in contact with dead bone which seems to act like a ferment. It is rare to get resolution of pus into gaseous matter when secluded from the air even out of the body. In pneumothorax the patient is seized with violent spells of coughing from irritation of the fluids in the pleural cavity. During these fits of coughing this is expelled and the patient feels relieved until the pus again reaches the perforation. Furthermore the patient will be compelled to lie in that position by which the opening will be out of reach of the fluid.

These cases are always desperate, for besides having two very fatal diseases (tubercles and empyema) associated with it, we have this last also. Our object should be to prolong life to the utmost limit by good food and stimulants. We may also apply with propriety some counter-irritant to the chest, as zinc iodid. Furthermore as it is better for the pus to escape through the walls of the chest than through the lung, *we are to make a permanent opening.*

LACERATION OF THE CERVIX UTERI AND ITS SURGICAL TREATMENT.

A Clinical Lecture Delivered at the University Hospital, Phila.

BY

WILLIAM GOODELL, A.M., M.D.

Professor of Clinical and Didactic Gynecology in the University of Pennsylvania

Reported for THE HOSPITAL GAZETTE

This woman comes to the clinic with the neck of her womb projecting from her person. This projecting body bears a very close resemblance to a shark's mouth. The cervix is evidently lacerated on both sides, and these lacerations extend low down. This condition of things interferes very seriously with coition. The woman has come to me not so much, perhaps, on her own account, as to have her person made acceptable to her husband. The patient tells me that she has been sterile ever since her last confinement, that she feels wretchedly and suffers greatly from constant bearing down pains. The best thing to do is not to amputate the cervix, although the tear is very bad, but to bring it down and sew up the lacerations.

It is a well-known fact that the cervix uteri expands greatly during the course of labor, owing either to the impatience of the attending accoucheur or the inordinate desire of the woman to hasten the birth of the child, the membranes are very often ruptured prematurely and the head of the child pushed violently through the as yet undilated os, gives rise to the laceration. If this tear takes place on the anterior or posterior part of the cervix it is very likely to heal of its own accord and without any surgical interference. This is, of course, owing

to the fact that the natural movement of the cervix is backward and forward and not from side to side. Lacerations of the cervix are almost always, however, lateral. The complete subinvolution of the womb is thus retarded by the condition of the cervix and so the troublesome symptoms will continue until the cervix is restored to its normal state. These lateral lacerations always demand an operation. The mucous membrane of the cervical canal is studded with glands and follicles and covered with pavement epithelium. The rent in the cervix rubbing against the wall of the vagina sets up a constant source of irritation, and abrades its exposed mucous membrane.

When a patient comes to you complaining of leucorrhœa, of pelvic weight and pains, and of other like symptoms, a superficial examination shows only an erosion and is very likely to lead you to overlook the real gravity of the injury.

A physician, thus misled, applies nitrate of silver, or cauterizes the raw surface with nitric acid, or, perhaps, makes use of astringent suppositories, and very possibly the leucorrhœa disappears, the other symptoms improve and the woman goes away, considering herself cured, only to return in a short time with all her troubles upon her again. It is the commonest thing in the world for a practitioner, particularly a young one, to mistake laceration for erosion and to treat it accordingly, that is to mistreat it. I am not free myself from the same blunder.

The proper diagnosis of laceration of the cervix uteri may be made in the following manner: First, make a careful digital examination, then draw the anterior and posterior lips of the womb together by means of tenacula, and if, in so doing, you are able to reduce the size of the cervix and to cause the supposed erosion to disappear, you may be tolerably sure of the existence of a laceration. This condition demands, of necessity, also a very careful examination with the speculum.

In recent cases of this accident, that is, when it has been discovered during the lying-in state, there will usually be found to be more or less cellulitis while the pulse will be high and feverish. There will be pain in the iliac fossa, the temperature will remain high and the woman will be very slow in convalescing.

A speculum examination in this case reveals to me a redundant condition of the walls of the vagina, in addition to the other difficulty. See what an exact resemblance this state of the cervix bears to a shark's mouth. When the laceration has occurred right in the centre of the cervix the torn os resembles more a bishop's mitre.

I said that the laceration interferes greatly with coition. It is the length and lowness of the womb which makes sexual intercourse difficult in these cases.

I had made up my mind when I first examined this woman to amputate the cervix, but I now think that I will first essay the more troublesome operation of stitching up the rents, in the hope that that will be all that is necessary.

Amputation is certainly an easier and may be in cases the better operation, but its dangers or drawbacks are (1), that it may cause obstruction of the opening of the os, and (2), it makes the cervix so

short that if the woman has a flexion of the womb in after life it is hard to use a pessary with advantage as there is no cervix behind which it may lodge.

If the cervix does not bleed too much I shall use a knife, as it cuts so much better than scissors; but no, I shall have to confine myself, I see, to the scissors.

My assistants by this time have succeeded in thoroughly etherizing the patient, and have now placed her on her left side on this operating table (which I have designed for use in my office, and the gynaecological clinic) with her hips well to the edge.

This operation for lacerated cervix is an unsatisfactory one to perform before a large class, particularly when the light is poor, so that you will have to listen attentively to my explanatory remarks if you would take in all the steps of the operation. Sims' speculum is the best instrument for this, as well as for other vaginal and uterine examinations and operations. Having inserted this speculum and dragged the womb down by a double tenaculum, I shall at once proceed to denude the torn edges and to bring them into accurate apposition before I introduce my stitches. This, as you may well imagine, is no easy thing to do, for the vagina is a very narrow place in which to operate, and the blood flows over the parts constantly, obscuring them much. I have cut a wedge-shaped piece of skin out of the rent, as you see, so as to make sure that no spot of mucous membrane is left behind. The cervix and womb are highly vascular organs, and, as you notice, bleed very readily. Before proceeding to denude the surfaces in this operation you ought always to begin by taking hold of the two split lips with tenacula and bring them together so as to map out beforehand the field for your work, as it were.

As I snip away the skin with my scissors a small artery spurts every now and then, but there is no earthly use in stopping and trying to tie these arteries, because the surrounding tissue is too erectile and the artery cannot be pulled out so as to give you a chance to slip your ligature round it. In fact these bleeding vessels are rather sinuses than arteries. You may generally disregard this bleeding until you pass in the stitches, for they always constrict the tissues, and so stop the bleeding. Where the bleeding is troublesome a small wire *écraseur* may be necessary as a tourniquet for the cervix, or you may improvise a wire loop at the end of your wire twister, which does very well in the case of an emergency.

Always begin denuding on the anterior lip, *i. e.*, the lower one, otherwise your work will be obscured by the flow of blood. Be careful, in every case, not to leave any little islets of undenuded tissue. This latter state of affairs always prevents union.

In one of my cases where I performed this operation, that of a lady who had a retroflexion of the womb complicating the laceration (this retroflexion was brought on, of course, by the fact that the cervix is the main stay of the womb, and that when it is lacerated the womb wobbles about in all directions). I made trial of all sorts of pessaries for the retroflexion, but without doing any good. She was barren, and the fact so far affected her mind that

she was afraid to go out into the streets by herself. It was not until the lacerated cervix was stitched that the retroflexion began to disappear. You have no idea what a woman will go through when she wishes to have children, just about as much, in fact, as she will undergo when she has made up her mind not to have them.

This operation for laceration of the cervix is generally a most successful one. The hardest part of it all is the passing in of the sutures. A cervix which has been for a long time in such a condition offers one of the greatest obstacles to the passage of a needle to be met with in the whole range of uterine surgery. This cervix is just as tough as leather. I have, upon several occasions, found it almost impossible to pass needles through such tough tissue without bending, or, perhaps, breaking them in the attempt.

Let me, to revert a minute, call your attention in passing to the very powerful influence which a disordered womb has upon its possessor's brains. My former patient, to whom I made brief reference a few moments since, was made utterly wretched by the laceration. Nervous, easily frightened, unable to sleep at night—in fact almost insane. The operation restored her health of mind and body completely.

Be very careful not to denude the whole surface of each lip, but to leave a spot in the middle of each untouched, otherwise the cervical canal would be wholly closed. I have been in the habit of calling this undenuded portion my "room for repentance," as the painter would put it.

There is a very valuable bit of advice which I want to give you with regard to premature rupture of the membranes, which, I said, was a potent cause of laceration of the cervix. *When the woman is labor is a multipara, you may generally rupture the membranes with impunity, after a fair dilatation of the os. But in the case of a primipara you must not rupture them until after full dilatation has taken place.*

Laceration of the cervix has only been recognized for a short time as a serious affection in women. Few physicians attempt to treat it, and so I always have a great many cases on hand at this clinic.

I have been less successful than usual to-day in pushing my needle through. Never thread your needle with the wire which you intend to use as a suture, but pass a piece of fine silk thread through the eye of the needle and tie a half knot in it. In making the stitches pass the end of the wire through the loop of the thread and simply bend it over. The wire will, of course, follow the loop.

See how small the cervix becomes when I bring these raw surfaces together with tenacula. I have had the woman prepared for the operation in this case by several applications of the tincture of iodine to the surface of the cervix so as to reduce the great engorgement. Hot water injections have also aided in making the parts more healthy. The woman's bowels have been thoroughly opened.

I use a round and not a surgeon's needle for this purpose because it cuts less and so causes less hemorrhage. As my needle is, of necessity, blunted each time it comes in contact with the speculum, I blunt but one needle and do not injure three or four as I have often done in the course of a single operation of this kind.

A needle holder is indispensable in this operation. An ordinary forceps will not answer for this purpose. You must have one with teeth. If the operation of sewing should fail, you always have the resource of amputating the cervix.

I am using perineal wire for my stitches as I have no other kind with me, but it is too thick and applicable only for long stitches as in the perineum. I shall rely on the after shrinkage of the parts to remodel the neck of the womb. In the course of a few weeks all the irregularities will have disappeared.

I have made about three stitches on each side, putting the needle in well back from the edge so that the stitches will not tear out. The last stitch on the lower side I have passed all the way through with one sweep. As the operation has proceeded you have noticed that the patient has been gradually getting over on her belly. That is not, of course, the proper position for the operation, but as long as I can work easily I will let her alone. I see that I shall have to pass another suture just below the angle, so as to stop all the bleeding. The operation is, at best, a long and tedious one. I hope to shorten it in future by pursuing Mr. Gemrig to have a much stronger needle holder made for me. In fastening the stitches I use perforated shot. Some gynecologists of high standing object to this mode of proceeding, but I have never had any harm come of it and, hence, prefer it, perhaps from habit. I make use of considerable force in pushing the shot home on the wire, enough to bring the raw edges into accurate apposition. In cutting off the ends of each wire after clamping the shot I sever them close enough to the lead to shave off a thin film of it with the scissors. This prevents points occurring which might wound the vagina.

The laceration, in this instance, has been worse on the left side, because the vertex presented on that side. In the vast majority of cases where there is an occipito-posterior position the vertex will present on the right side, and the laceration will be worse there.

To-day my patient's womb is $3\frac{1}{2}$ inches long. In the course of a couple of months I hope to bring her before you and show the womb reduced to its normal size.

One means of diagnosis between a laceration of the cervix and an erosion has been already mentioned. In some cases the cervix is mushroom-shaped, and curls over like a cut celery top. This being the case when you put in your speculum you make it turn still further over, and present a plane surface. When this happens, the only means of determining the exact nature of the trouble is to pull down and bring together with the fingers the parts which have turned over.

I should have told you that before clamping your sutures you should first open the sides of the rent, and with a sponge (a syringe is the best thing for this purpose, but here there is only space enough to use a sponge) clean out all the clots.

With regard to the after treatment of this woman I shall tell my resident that enough opium be given to lull any pain that she may have, and what is more important still, to prevent any movement of the bowels for at least a week's time. Any movement on the part of the bowels might seriously interfere

with the due process of healing by first intention. She must be kept in bed for two weeks.

Before I send the patient away I want to let you see the stitches. The result of the operation gives what may be called a conical cervix. Instead of being broad on top it is conical. I have been very careful not to leave any raw surface exposed, for fear of dangerous and draining hemorrhage. The veins of the womb and cervix are valveless, and the tissues are erectile. If, in spite of all my precautions bleeding should take place, I should order, first, an injection of hot water (110°) into the vagina, and if that did no good I would try a saturated solution of alum. But suppose that this secondary hemorrhage still persisted, what are you to do? You must insert a speculum and plug up the vagina in a manner that I am about to describe, using my thumb to represent the cervix, and my assistants' hand closed around it, to take the place of the vagina. With wet and flat pieces of cotton, not larger than a silver dollar, you must firmly pack the upper portion of the vagina all around the cervix until the layers of cotton reach the os. Then fill up the rest of the vagina so as to keep this important upper packing from becoming displaced. In this way you may not only effectually tampon the vagina, but you bring the stitched surfaces in closer relation with one another, and, consequently, in the best possible condition for uniting.

Eight days from now I shall remove the stitches. The patient's water must be carefully and regularly drawn during this period with the catheter. Some women can not pass their water when lying on their backs, and even if they could, it would not be advisable to thus allow the possibility of a small portion of the urine finding its way into the vagina and setting up an irritation on the raw surface of the wound. If any offensive discharge shows itself I shall have the vagina carefully cleansed with a solution of the permanganate of potassium, or of carbolic acid. Cases of this kind if not promptly attended to and cured, may result in some of those dislocations of the uterus, in which that organ hangs wholly outside of the body.

If you wish to keep the edges on your curved scissors, always, in such an operation as this, cut the wire ends with the heel and not with the point of your scissors. In the operation for vesico-vaginal fistula you cannot do this. You see how tedious an operation this has been. I have been kept hard at work for a full hour. I have never performed this operation in less than forty minutes. The last thing I shall do before sending this woman to the wards is to push the cervix well up, and so throw the fundus into the hollow of the sacrum.

HOSPITAL RECORDS.

THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, PHILA.

SERVICE OF LOUIS A. DEDING, M.D.

(Prepared for THE HOSPITAL GAZETTE.)

RHEUMATOID ARTHRITIS AND CHRONIC ECZEMA.

James Talbot, white, æt. 41, iron worker. Admitted July 30th, 1874. Twenty years ago he went

to the Isthmus of Panama in charge of a storehouse, and remained there four months, during which time he contracted Panama fever, consisting of chills, fever and night sweat, followed by general debility. He returned to Philadelphia very much reduced in health and has never since recovered from the effects of this disease. Fifteen years ago he was attacked for the first time with inflammatory rheumatism, beginning suddenly in the feet and extending thence to the various other joints of the body. He was confined to bed for nine months, the feet, ankles and hands enlarging and becoming painful. He remained in a partially crippled condition for five years, being better and worse from time to time. Seven years ago while at work excavating a well he was again attacked with rheumatism accompanied by great pain in the joints and by general stiffness. Upon this occasion he kept his bed for fifteen months and experienced a most severe attack. He never recovered entirely from this illness and found himself becoming more and more involved from month to month. Three years ago the disease had increased to such an extent that he was forced to stay in his bed permanently. His feet, hands, and all the larger joints were greatly swollen and disfigured. He now began to get steadily worse, both as regards deformity and suffering. The rheumatic symptoms all became more marked and showed no disposition to leave him. He became entirely unable to use any of his joints and even to turn in bed. He has been on his back for the last two years. During this time he has gradually lost flesh, notwithstanding that his appetite has been good. His bowels have been constipated. He has never had any skin disease of any kind until one year ago when his present trouble began to show itself on his right foot, around the back of the foot and on the instep. The left foot soon became similarly affected. Later the hands and arms were attacked and by degrees, in the course of six months, the trunk became involved. Patient states that the eruption started about the large toe nail, which loosened and came away, and was followed by a crust formation. These crusts came off from time to time leaving a reddish, discharging surface, and finally all the toe nails became detached. At this time there was no itching, but about eight months ago itching began and was most severe about the legs and arms.

Present condition.—The skin of the face, scalp, shoulders, arms, abdomen, penis, legs and feet, is involved in a low grade of eczema. The disease is diffused in patches of various sizes and is most marked upon the lower extremities. The skin is boggy and red, giving forth a copious secretion of liquid with a certain amount of blood, which dries, forming extensive crusts. On some parts of the feet there is maceration of the epidermis showing the rete mucosum in an exposed state. The nails of the toes are all in a soft, broken down condition and loosely attached to the matrix. Upon the calves of the legs are small, abraded patches of papular eczema. The knees also are similarly affected. About either side of the throat at the anterior termination of the ribs are two patches of inflamed skin, resulting from the constant pressure of the hands upon these parts. The hands and fingers are covered with large, yellowish crusts, which

can readily be detached, exposing beneath a soft pulpy substance, from which serum and blood constantly ooze. The skin upon the other portions of the body is more or less shriveled, dry and scaly. A very low state of vitality of the cutaneous surfaces is everywhere to be seen. Patient lies upon his back and is unable to move from this position. The thighs are flexed upon the body and the legs upon the thighs. The joint trouble and the contraction of the tendons fixes the limbs in this position. The feet are everted to almost a right angle with the legs, and are immovable. The arms are fixed across the abdomen. The left hand abducted and fingers immovably flexed. The right hand is less markedly distorted, and the fingers are extended. The lower jaw is almost fixed and he is unable to masticate anything solid. Appetite good and is in good spirits. Urine has a specific gravity of 1015, and contains red albumen or sugar. He sleeps pretty well, but is kept awake during the early part of the night by pain in the joints and limbs. Respiration 16, pulse 84. Bowels constipated, was ordered pulv. aloës gr. j., ext. colch. comp. gr. j., ext. hyoscy. gr. ss., at night, and his body to be washed with castile soap and water and then sponged with liq. picis alk. f 3 to Oj., and also an ointment of acid. carbol. gtt. x ung. zinc. benzoat. 3 j. to be applied after the tar wash.

Aug. 8th, 1874.—Has been steadily improving as regards the eruption, healthy skin extending in all directions, particularly upon the feet. Where its advances can be daily noted. Had a despondent nervous attack yesterday. Bowels not moved for three days, so repeated laxative pills. One or more of the joints are moved daily by the nurse. Patient is taken out upon his bed into the open air for an hour or more a day, according to his condition, weather permitting.

Aug. 28th.—Prostrated somewhat by a nervous attack. Pain in limbs, more motion than formerly, skin improving, steam bath administered in bed and continued twenty minutes. Pulse increased from 88 to 115.

Sept. 9th.—Steam bath to lower limbs.

Sept. 22d.—Slept comfortably; better than he has for two years. General condition improving. Omit tar alkaline wash. Decidedly more motion in joints than formerly.

Oct. 1st.—Eruption changing from squamous to papular and vesicular, particularly upon the lower limbs.

Oct. 7th.—Some little improvement, appetite good. Continue the same treatment and diet, milk punch daily, and ale in evening. External application of green soap and alcohol. Complains of soreness and stiffness in jaws on account of taking cold, some increase in number of blebs on legs.

Oct. 14th.—Motion of joints improving. Blebs not quite so numerous.

Oct. 29th.—Decidedly better. Legs and feet much improved, ordered ol. morrhuae f 3 ss. t. d., and stopped potas. iod. mixture.

Nov. 9th.—Ordered a pill of ferri proto. carb. gr. ij pulv. glycy. gr. ij. Sacc. alb. gr. iv. t. d. Also an ointment of amyl 3 iij, 1 3 inci ox. 3 iij hydrag. chlor. mit. 3 iv., to be applied to limbs and body night and morning.

Nov. 18th.—Blebs very numerous and confined to the calves of the legs. This increased quantity of blebs seems to contradict the idea that they are caused by the potas. iod. for that medicine was discontinued long since. Ordered the iron powders to be stopped.

Dec. 1st.—No improvement. Ordered tr. ferri chlor. gtt v. in lg. pot. arsenitis Mj. once daily.

Feb. 2nd, 1875.—Patient has been no better for last two months. Feet almost in same condition. No material change except a little lessening in number of bulke.

Feb. 22nd.—Pain in joints is very severe now. No change in condition of skin.

Mar. 15th.—Use tar ointment on feet and legs made of ol. cade fl. 3 to the oz. of ung. zinc. ox. Stopped the ointment of calomel.

April 25th.—No change. Ordered a prescription of hydrarg. chlor. corros. and alcohol.

Aug. 24th.—Discharged to-day unimproved. For the past two months he has been taking little or no medicine and there has been no change in his condition. About August 1st, 1878, he died in another hospital in this city.

TRANSLATIONS.

EMPLOYMENT OF INHALATIONS OF THE ESSENCE OF TEREBINTHINA IN HEMOPTYSIS.—GUILLEMIN

Translated by BARNARD ELIUS, M.D.

The constrictive action of the essence of terebinthina upon the small blood vessels, and its well known hæmostatic properties, suggested the idea of employing inhalations to combat hæmoptysis; and I have been somewhat surprised that no one before me had thought of it, although its employment by the stomach, against this accident, is common. There are numerous varieties of hæmoptysis, and I am far from considering the essence of terebinthina as an infallible means of arresting all the hæmorrhages which are united under this generic denomination. We must make distinctions. The inhalations which I have employed with success in a certain number of cases seemed indicative only when the hæmorrhage was moderate and constituted by the presence of sputa mixed with bloody streaks, or slightly discolored by blood, or, yet, when blood was rejected pure but in small quantity at a time. All the patients I have treated with inhalations were phthisical, and in all cases I have succeeded in a short time, in arresting the hæmorrhage. In cases of abundant hæmoptysis, caused by rupture of a large vessel, inhalation succeeds certainly less well, but perhaps it may be yet useful, at least as an auxiliary means of treatment. I cannot speak more precisely as I have not had occasion to employ it in these cases.

CONCLUSIONS.

1st. The affections of the mucous membrane of the air passages may be in certain cases, advantage-

ously combatted by inhalations of medicamented vapors.

2d. In the first period of acute inflammation of this membrane, the agony, the cough and the painful sensations, which are the consequence of irritation and dryness, are rapidly calmed by inhalations of moist and warm aromatic vapors.

3d. The calming action is yet more pronounced if we add to the liquid which serves for the inhalation, a small quantity of volatile calming substances, such as ether, eau distillée de laurier-cerise, or conium.

4th. Frequently renewed inhalations of the essence of terebinthina, when they are made at the commencement of the first period, may check the progress of the disease.

5th. Vapors of iodine exercise an irritant action upon the membrane of the air passages, they determine efforts to cough, and augment the secretion. This irritant action may be utilized:

a. To diminish the tumefaction of the membrane by causing the inflammation to pass from the first to the second period. This indication exists particularly in cases where the inflammation occupying the small bronchia, the swelling of the membrane is great enough to menace insufficient respiration.

b. To diminish the consistence and the viscosity of the morbid products of secretion, by mixing them with the mucus of which the vapors of iodine increase the formation.

c. To provoke efforts of coughing, to disembarass the air passages of the products which have there accumulated.

6th. It is not solely by their irritant property that the vapors of iodine modify the mucous membrane of the air passages.

Iodine possesses, really, the property of drying up the purulent secretions, and, besides, it prevents putrid fermentation. Also, at the time when this membrane furnishes a resultant purulent secretion, whether from an acute inflammation, which has reached the third period, or from a chronic inflammation, the inhalations of iodine diminish little by little the quantity of pus, and finishes in certain cases by entirely changing the nature of the secretion, which becomes entirely mucus.

7th. Although the essence of terebinthina in a liquid state may be a too energetic irritant for any tissues with which it may come in contact, the inhalations made with this essence are easily supported by the mucous membrane of the air passages; only a very moderate irritation is determined, and it rarely provokes violent coughing.

8th. When the membrane is diseased and furnishes a product of secretion, these vapors have for effect a diminution of the quantity and an augmentation of consistence.

9th. If this product is purulent, the inhalations of the essence of terebinthina continued a sufficient time, will diminish progressively the quantity of pus, and may in certain cases completely dry up the secretion. These inhalations are indicated in all the affections of the larynx, the trachea, and the bronchia, when they are accompanied by a very abundant muco-purulent secretion deprived of viscosity. We must, on the contrary, always avoid their use when expectoration is difficult by reason of too great viscosity in these products.

10th. In cases where these products are at the same time very abundant and very viscid, we may succeed, by alternate inhalations of vapors of iodine and vapors of terebinthina, in rapidly diminishing the quantity of the secretion, without increasing its viscosity, the inhalation of iodine ought always to be made first.

11th. Inhalations of the essence of terebinthina are indicated in hæmoptysis and might succeed very well in cases of average intensity.

INSTRUCTIONS FOR DISINFECTION PREPARED FOR THE NATIONAL BOARD OF HEALTH, 1879.

Disinfection is the destruction of the poisons of infectious and contagious diseases.

Deodorizers, or substances which destroy smells, are not necessarily disinfectants, and disinfectants do not necessarily have an odor.

Disinfection cannot compensate for want of cleanliness nor of ventilation.

I.—DISINFECTANTS TO BE EMPLOYED.

1. Roll-sulphur (brimstone) for fumigation.
2. Sulphate of iron (copperas) dissolved in water in the proportion of one and a half pounds to the gallon; for soil, sewers, etc.
3. Sulphate of zinc and common salt, dissolved together in water in the proportions of four ounces sulphate and two ounces salt to the gallon; for clothing, bed-linen, etc.

NOTE.—Carbolic acid is not included in the above list for the following reasons: It is very difficult to determine the quality of the commercial article, and the purchaser can never be certain of securing it of proper strength; it is expensive, when of good quality, and experience has shown that it must be employed in comparatively large quantities to be of any use; it is liable by its strong odor to give a false sense of security.

II.—HOW TO USE DISINFECTANTS.

1. *In the sick room.*—The most valuable agents are fresh air and cleanliness. The clothing, towels, bed-linen, etc., should, on removal from the patient, and before they are taken from the room, be placed in a pail or tub of the zinc solution, boiling-hot if possible.

All discharges should either be received in vessels containing copperas solution, or, when this is impracticable, should be immediately covered with copperas solution. All vessels used about the patient should be cleansed with the same solution.

Unnecessary furniture—especially that which is stuffed—carpets and hangings, should, when possible, be removed from the room at the outset; otherwise, they should remain for subsequent fumigation and treatment.

2. *Fumigation* with sulphur is the only practicable

method for disinfecting the house. For this purpose the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which cannot be treated with zinc solution, should be opened and exposed during fumigation, as directed below. Close the rooms as tightly as possible, place the sulphur in iron pans supported upon bricks placed in wash-tubs containing a little water, set it on fire by hot coals or with the aid of a spoonful of alcohol, and allow the room to remain closed for twenty-four hours. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms, proportionally increased quantities.

3. *Premises.*—Cellars, yards, stables, gutters, privies, cesspools, water-closets, drains, sewers, etc., should be frequently and liberally treated with copperas solution. The copperas solution is easily prepared by hanging a basket containing about sixty pounds of copperas in a barrel of water.

4. *Body and bed clothing, etc.*—It is best to burn all articles which have been in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be treated as follows:

(a.) Cotton, linen, flannels, blankets, etc., should be treated with the boiling-hot zinc solution; introduce piece by piece; secure thorough wetting, and boil for at least half an hour.

(b.) Heavy woolen clothing, silks, furs, stuffed bed-covers, beds, and other articles which cannot be treated with the zinc solution, should be hung in the room during the fumigation, their surfaces thoroughly exposed, and the pockets turned inside out. Afterward they should be hung in the open air, beaten, and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, the contents spread out and thoroughly fumigated. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten.

5. *Corpses* should be thoroughly washed with a zinc solution of double strength; should then be wrapped in a sheet wet with the zinc solution, and buried at once. Metallic, metal-lined, or air-tight coffins should be used when possible, certainly when the body is to be transported for any considerable distance.

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NEW YORK, SATURDAY, SEPTEMBER 20TH, 1879.

EDITORIAL.

MEDICAL INSPECTION OF SCHOOLS. INTELLECTUAL UNFORTUNATES.

Upon a former occasion we urged the importance of medical inspection of schools as a means of securing promptness and regularity of attendance. The arguments then used had a pecuniary weight, and were selected for that reason, since they would address themselves more forcibly to the cost-calculating mind, and make an impression favorable to the cause with a desirable class of people. This impression would serve as a foundation, other reasonable approaches could then be made, and a solid opinion finally evolved, which would produce good work, tangible results. These calculators, the dollar and cent men are sure in their work, although they are slow; they need to be convinced first, then they labor, with a purpose and to a fixed point. They can be convinced, for they are the single exception to the truism "convince a man against his will, he's of the same opinion still."

We press the subject again; this time from considerations of the necessity of aiding, developing and perfecting, if possible, the intellectual and moral attributes of children, naturally deficient, mentally, therefore morally weak.

The commonest observation reveals variety in intellect as extensive and evident as variety in faces. No two faces or alike, no two minds approximate

each other; humanity demands a special mould for each cast. Intellects differ in power, quality and material as much as faces and forms in beauty and shape, ranging from glimmers of the consciousness to almost divine perfection. Instructors recognize these degrees of mentality, and press a word to serve their notion as to them; each pupil is credited with a "capacity," suggestive of prevailing cramming and stuffing processes, even if called methods of instruction. "Capacity" is so inappropriately employed, that it is not in our hearts to condemn the wealthy parent who endeavored to silence the professor's complaint about his son's want of a "capacity," by telling the professor to buy for the son "one of the best capacities in the stores, send me the bill, the price makes no difference."

Defects of the mental nature at birth are as common as physical imperfections, though not so immediately apparent to the sight. The latter manifesting themselves at once are examined, considered and removed or reduced by surgical art, if possible, and the life that deformity threatened to shadow, is made pleasant by timely care and scientific skill. Parental love prompts such a course, and the measure of their goods alone limits the height of the skill and care which the parents employ for the task. Public interests require that if those means are not sufficient, public funds should furnish the deficiency, since the little treasure applied at the right moment will ensure a happy, able-bodied citizen, while its being withheld most probably swells the pauper list and the poor tax.

What duty suggests as to the care of the physically unfortunate, is greatly multiplied for children whose mental and moral constitutions are defective. The institution of the public school system, with its compulsory attachments, demonstrates the universal concession of the right of the public to demand mental training for the young, as a safeguard for posterity. The great mass of children are educated, willing or unwilling, that they may be fitted for the duties of manhood, that they may be good citizens, contributing to the country's wealth rather than being a burden upon it. Excellent provision, not perfect as yet, has been made by the government to give the benefits of education to all. The later years have been prolific of improvements in sanitary, architectural and professional aspects of the schools, and the public are earnestly demanding continued improvement, regardless of expense.

With such educational accommodations freely extended to the youth, their education, if possible, must be secured, and those having control of the schools must be alive to their duty of including every child as among those to be benefited. In the

neglect of this, is the notable failure of our school system, and the chief cause of our growing prison arrangements. The public school system should reach every child with its blessings, that its glory should be greatest; especially should it reach such, as being deprived of public assistance, would have no other path to education open to them. The system is not designed merely for the children of strong and perfect mental powers, but it seems to us that the intellectual unfortunates, who will, if uncared for, become public burdens, should have especial attention accorded to them by the public school authorities. Our common schools ought to be so conducted that they would redeem and remedy as many crime-promising buds as possible, even if special effort is needed; remembering the value of opportune effort, and the certainty of a blasted life coming from an imperfect mind. Some mentally diseased, like some physically faulty, are hopeless, but these exceptions must not work to the condemnation of the curable. Their certain sad fate ought rather to be incentive of effort for all, until hope is forever gone for each.

We cannot expect that teachers will be able to accomplish the work required in this specially important department without assistance and guidance, for we know that their labor in developing to the examination standard the bright and the better pupils will fully occupy their time. This task is positively exhausting to the teacher, as demanded by the present regime, without his undertaking the special labors of furnishing capacities and reducing mental dislocations, or uniting intellectual fractures; mediocrity in which has been attained by few in the profession of medicine, and excellence in which has come to a bare handful in a century. The young intellectual unfortunates are, and must be neglected in the great Public School System at present, as the teachers have neither the time nor special ability to build for them, the lacking parts; the neglect is discontinued in every other place, and the unbalanced intellect develops itself as it pleases. The imaginations and fancy lead out the strong passions, and life is shadowed with crime and its penalties, or if consciousness be present, a living death, out of human sight and touch, is the goal sought. The less afflicted furnish the prison population—for, if with the greatest advantages of education, and perfect mental powers, some fall, what can be expected of mentally and morally defective creatures, untutored and uncared for. The private loss sustained by crime, and the public tax for courts and prisons is the demand that these creatures in their days of strength make, and obtain from society. Society reaps a fitting reward for her neglect of them in their plastic days.

The question comes squarely before us as civilized beings, what must be done for these unfortunate children? The state has provided by her system of schools, a means of gathering them together, and upon that foundation, all effort must build. The question has a medical significance, and the physician must be represented in the council that suggests remedies. Medical inspection, responsible and remunerated, must be provided. The conditions and manifestations of weakness in the mental and moral natures of the pupils must be hunted out by an experienced eye, and the remedy, applied and advised in the formative seasons.

The influences brought to bear upon a weak or wavering mind, in its early days, determines that life. Skill and care develop a self-reliant human being; neglect opens the prison doors for the unfortunate.

SELECTIONS FROM JOURNALS.

THE ANTIFEBRILE EFFECTS OF COLD ENEMATA.

In the *St. Petersburg Med. Woch.* of June 14, M. LAPIN, one of the *internes* of Prof. Manassein's clinic, gives an account of the trials that have been made there of cold clysters as an antipyretic means. After noticing the few observations upon the subject which have already been recorded, he gives an account of the fifty observations which he has made in Prof. Manassein's wards. Of these he has published a detailed account in a Russian journal, confining himself in the present communication to a general statement of the results.

Prior to the administration of the clyster the temperature of the patient was taken, while lying on his back, in the axilla, the hypogastric region, and the rectum. The temperature of the litre of water employed varied from 5° C. to 10° C. (41° F. to 50° F.), and Hegar's apparatus at a pressure of two feet was used for the administration. After the water had been discharged the temperature was again taken in the same localities. Of the fifty trials, twenty-six were made on fever patients, twelve on patients with non-febrile diseases, and twelve on persons in health. From these trials the following conclusions are drawn—1. Cold clysters form a practical means of reducing temperature, the influence of which continues for a considerable time. After clysters at 10° C. the temperature scarcely reaches its former height in the axilla for from thirty to forty minutes, in the hypogastrium after an hour, and in the rectum after an hour and a half. With clysters at 5° C. the cooling in the axilla lasts for forty or fifty minutes, but in the hypogastrium and the rectum it lasts a much longer time than when water at 10° C. is used, so that the prior high temperature has never been observed to be regained until from two to two and a half hours after. 2. The clysters at 10° C. are well borne in all cases without exception, sometimes leaving behind them a pleasant sense of coolness extending over the whole body. Those at 5° C. are by some just as well borne, but in others they induce unpleasant

sensations in the abdomen. In recurrent fever even shivering may be produced. 3. The depression of temperature is more considerable in cases of fever than in non-febrile affections, and in the healthy. (In the fever patients the fall of temperature varied from 0.60° to 0.40° in the axilla, from 1.50° in the hypogastrium, and from 5° to 1.70° in the rectum. In non-febrile cases it varied from 0.40° to 0.30° in the axilla, from 1.40° to 1.10° in the hypogastrium, and from 1.00° to 1.30° in the rectum. In healthy persons it varied from 0.60° to 0.30° in the axilla, from 1.30° in the hypogastrium, and from 2.60° to 1.40° in the rectum.) 4. Not only is the temperature diminished, but also the number of the pulse and respiration to a small extent. 5. The greatest diminution of temperature takes place in the rectum; next in the hypogastrium, and least in the axilla. 6. An advantage of the cold clysters is an adjuvant of other energetic antipyretic means consists in their fulfilling other indications besides the depression of temperature: *a.* They remove the accumulation of masses of feces, which so frequently occurs in fevers; *b.* They diminish meteorism by contributing to the removal of gases; *c.* In this way they render possible greater freedom in the movements of the diaphragm, and remove a source of self-poisoning of the economy by means of the gases; *d.* To a certain extent, they diminish the afflux of blood to the organs in the vicinity of the rectum, especially the uterus and bladder. 7. Stools follow the use of the clysters at different times in different individuals, varying from a quarter of a minute to two minutes and a half. 8. There can be no doubt that, when a clyster is also indicated in non-febrile cases, the cold clyster should be preferred to the warm in all those cases in which, besides the emptying of the intestine, it is desired to produce a tonic effect on the canal, or to diminish the amount of blood in the pelvic organs. —*Med. Times and Gazette*, July 19, 1879.

SILKWORM-GUT SUTURES.

Mr. J. Hopkins Walters recommends (*Medical Times and Gazette*, June 28, 1879) silk-worm or fishing-gut as a material for sutures, its chief excellence consisting in its causing little or no irritation when embedded in the tissues. The way in which the latter tolerate its presence is wonderful, far surpassing either fine silk or silver wire, and, being perfectly soft while contained in moist structures, it remains pliable, admitting of, and participating in, the movements of these, instead of being stiff and resisting like wire. Another valuable quality is its comparative indestructibility, in this greatly differing from catgut, which, after a few hours, becomes completely softened and disintegrated, and finally incorporated with the surrounding tissue.

Fishing-gut maintains its integrity for many weeks, its strength seeming in no way impaired after removal. Its peculiar structure seems to render it almost as incapable as wire of becoming impregnated with the discharges from wounds which so often make silk injurious, if not absolutely dangerous. When Mr. Walters first used this material he always steeped it for a minute or so in glycerine of carbolic acid, but he has neglected to do so for a long time past and does not find that it makes any difference. —*Mon. Abstract*.

TRANSFUSION IN ACUTE LEUKÆMIA

This case occurred in the wards of M. Gubler at the Hospital Beaujon. The patient was a baker's boy, aged 24. He had been ill two months with general malaise and extreme weakness. He was very pale. The spleen and liver were much hypertrophied, and the lymphatic glands in several parts were also large. The blood contained one white globule to five or six red. He was treated with ferruginous tonics, arsenic, and hydrotherapy, but the disease made rapid progress, the spleen augmenting in size with surprising rapidity. Hemorrhages from the nose now commenced, and his eyesight became impaired, and a second examination of the blood showed that there were as many white as red globules. In the presence of this galloping leukæmia, transfusion was resorted to. The brother supplied 100 grammes of blood, and sixty were injected. During the transfusion the patient experienced a feeling of warmth in the arm, then in the shoulder, and some seconds afterwards he was seized with a dry cough. Five minutes after the operation the pulse was 104, the same rate as before it, but the sphygmographic tracing showed that the up stroke now approached the vertical. There was an immediate rise of temperature in the axilla from 38° to 38.4° C. He was much improved for three days, when fresh epistaxis occurred, and, desirous of returning home, he left the hospital. —*London Med. Record*, July 15, 1879.

SPASMS OF THE PHRENIC NERVE TREATED WITH ETHER-SPRAY.

Dr. Regoni reports (*Memorab.*, 5, 1879) the following case: The patient had for eight days previous to his admission to the hospital been suffering from a continuous and very violent hiccough, which he attributed to having eaten a large quantity of vegetables and macaroni. The hiccough had begun an hour after the meal, and had increased in violence, so that the patient could neither eat nor sleep, and was very weak. Every attempt to take food, or even water, increased his sufferings, and was followed by bilious vomiting. While examining the patient, the author was struck by the violent and incessant movements of the diaphragm, the thorax being comparatively quiet. The patient complained of dyspnoea, and was slightly cyanotic. The stomach was much dilated and tympanitic on percussion. Pulse and heart normal. The diagnosis, "spasm of the phrenic nerve," having been made, a spray of sulphuric ether was directed for ten minutes, first to the epigastrium, then for five minutes on both sides of throat. During the *séance* the hiccough decreased in violence and frequency; another application was made in the course of the forenoon, after which the patient slept two hours. The treatment was repeated several times in the course of this day and the next, and the patient recovered. —*London Med. Record*, July 15, 1879.

CHANCRES OF THE TONSILS AND THE BUCCAL CAVITY.

M. Spillmann has published in the *Revue Médicale*

the first two cases of chancre which are very remarkable, both for the peculiar circumstances attending the infection, and for the difficulty of making a diagnosis.

The first was that of a lady, aged 59, whose position in life was such as to exclude all suspicion of syphilitic infection. She consulted M. Spillmann for a slight sore throat which she had had for about a fortnight, the pain being more violent during the act of swallowing. There was also a considerable swelling of the glands at the angle of the right maxilla. On examination of the throat, a wound of the size of a three-penny-piece was seen on the surface of the right tonsil, slightly depressed, and of a grayish hue. The mucous membrane around it was œdematous, and the parotid glands enlarged and tender to pressure. No other lesion could be discovered either in the mouth or throat, nor was there any external redness of the skin. The patient herself did not complain of any particular feeling of ill health, and seemed to consider her disease as a very trifling matter. M. Spillmann, who was well acquainted with his patient's way of living, could not conceive the existence of syphilis; but, a few days later, the characteristic syphilitic rash broke out, so that there could be no doubt as to the nature of the affection. The only difficulty to solve was the etiology of the case, and, after a great deal of trouble, it was discovered that the patient had adopted a baby which she was bringing up by hand, and that, in order to see if the temperature of the milk in the feeding-bottle was right, she often used to try it by drinking from the rubber mouthpiece. The infant being examined, was found to be suffering from hereditary syphilis, with ulcerations of the mouth and the genital parts.

The second case is not less interesting respecting the way in which the infection had been communicated. An upholsterer's apprentice, aged 13, had had for some days previous to his consulting M. Spillmann, a small red patch of the size of a three-penny-piece on the lower lip; this patch was indurated at the base, the glands were enlarged—in short, it was an undoubted chancre of the lip. It seemed impossible at first to discover the cause, when it was discovered that the boy used to work with a man who was suffering from syphilis, and took his nails from the same bag as this man. Upholsterers, it seems, are in the habit of putting into their mouths handfuls of the small nails which they use for their work, putting back the surplus nails into the bag. The workman was examined and found to have syphilitic patches in the mouth, and there can, therefore, be no doubt that the boy was infected by putting into his mouth nails which were impregnated with the saliva of this man.—*London Med. Record*, July 15, 1879.

ANALYSIS OF THREE HUNDRED AND FIFTEEN CASES IN WHICH FOREIGN BODIES WERE LODGED IN THE BRAIN.

Dr. H. R. Wharton analyzes (*Phila. Med. Times*, July 19, 1879) three hundred and fifteen cases in which foreign bodies were lodged in the brain, of which one hundred and sixty recovered, while one one hundred and fifty-six died.

In one hundred and six cases the foreign body was removed, death following in thirty-four cases, recovery in seventy-two cases.

In two hundred and ten cases no attempt was made to remove the foreign body, death following in one hundred and twenty-two cases, recovery in eighty-eight cases. It should be here stated that some ten patients who recovered sufficiently to attend to their regular occupations, but ultimately died at periods varying from three to fifteen years from the effects of their injuries, have been classed as having recovered.

Considering the severity of the injury, the proportion of recoveries is large, but on examination of the cases it will be observed that many of the recoveries were not complete, the patients afterwards suffering from epilepsy, vertigo, impairment of mind, incapacity for physical exertion, paralysis, loss of sight and hearing. In one hundred and eleven of the cases of recovery the above-named symptoms were wanting, while they were present in forty-nine cases.

In the one hundred and eleven cases that recovered without bad symptoms, the foreign body was removed in fifty-six cases and allowed to remain in forty-five cases. The question of interference for removal of foreign bodies is one which has caused much discussion, but on which Dr. W. thinks authorities are now generally agreed. In the following collection of cases the results of its removal were not only most satisfactory as regards recovery, but also as regards the completeness of the recovery. There can be no doubt that the presence of the foreign body increases the gravity of the injury, and that when its position can be clearly located, and when its removal is not accompanied with too great a destruction of tissue, it should be attempted. The difficulty of locating the foreign body is seen to be great, for when it has once passed out of sight the surgeon has no means of discovering its position, except by the probe. Extreme care should be exercised in passing a probe along the track of a foreign body in a wound of this nature, as little force is required to cause the probe to pass through the unresisting brain structure in a course different from that taken by the vulnerating body, and the surgeon may add other wounds to an already most serious injury. On the other hand, where the body cannot be accurately located, all attempts to find it by frequent probing should be desisted from, for, as has been shown, a large number of cases have recovered where it has not been removed, and there is a possibility of its becoming encysted, and of recovery taking place in this way or of life at least being prolonged.

Dr. W. thinks that Prof. Thomas Longmore, in his article on trephining in injuries of the head, expresses the opinion of the best surgeons of the present day. He says, "If the site of lodgment of the projectile is obvious, it should be removed with as little disturbance as possible, but trephining for its extraction when the place of its lodgment is not definitely known, but where the projectile is only supposed by inference to be lodged in a particular spot beneath the cranium, is an unwarrantable operation."* The presence of the foreign body in

* Holmes' System of Surgery, vol. ii. p. 181.

the brain in many cases excites inflammatory action, which may be either rapid or slow in its progress, sometimes destroying large amounts of brain-tissue before the case ends fatally. That cerebral abscess is a frequent cause of death is clearly shown by the fact that it was present in at least fifty-three of the fatal cases where post-mortem examinations were made; in many other cases the examination was made solely with reference to the location of the foreign body, and the condition of the surrounding tissues is not stated.

Apoplexy is also shown to be a cause of death in these injuries, but much less frequently than abscess. Pressure of the foreign body on the venous branches, interfering with the return of blood, causing effusion into the cavities of the brain, and this effusion by its pressure interfering with the function of the nerves which have their origin from the base of the brain, is also noted as a cause of death. Convulsions and coma, also resulting from this interference with the circulation of the blood in the brain, are frequently noted. A tendency to coma, it might be here stated, as in all head injuries, is a most unfavorable symptom, nearly every one of these cases in which it was marked proving fatal.

The presence of the foreign body in the brain seems to predispose to inflammatory action; in some cases of recovery where the foreign body remained in the brain, the cases progressed favorably until some cerebral excitement was experienced; five cases are recorded where death took place suddenly after excessive drinking, in one case during the excitement of a game of cards, in another after a slight injury of the head.

Seven cases were complicated with hernia cerebri; three of these proved fatal, four ending in recovery.

In quite a number of cases the foreign body remained in the brain for some time without causing any unfavorable symptoms, when suddenly cerebral symptoms developed and death quickly followed. Dr. W. thinks that the experiments of M. Flourens will help to explain these cases. He introduced leaden bullets into the brains of rabbits and dogs. The balls were placed on different parts of the upper region of the encephalon and on the lobes of the cerebellum. The balls left to the action of their own weight, penetrated by degrees the substance of the brain, and ultimately stopped at the base of the cranium, the passage made by the balls healing after them.* This fact that bodies were found to change their position may account for the sudden deaths in cases where their presence had previously occasioned little trouble.

Brodie's opinion that recovery is more apt to follow wounds of the anterior portion of the brain is strengthened by examination of the cases where the foreign body penetrated the frontal bone, of which there were one hundred and thirty-two, followed by death in fifty-eight cases and recovery in seventy-four cases.

There were fifty-eight cases of penetration of the parietal bones, followed by twenty-seven deaths and thirty-one recoveries.

The occipital bone was penetrated in twenty-three cases, with sixteen deaths and seven recoveries.

The temporal bones were penetrated in thirty-one cases, with twelve deaths and nineteen recoveries.

Wounds of the orbit were by far the most fatal, eighteen in number, followed by seventeen deaths and one recovery, although the persons were in many cases unconscious of the injury, and the unfavorable symptoms developed suddenly.

The sphenoid bone was penetrated in five cases, with four deaths and one recovery.

In forty-nine cases where the wound of entrance was not definitely stated, there were twenty-two deaths and twenty-seven recoveries.—*Men Abstract*

THE USES OF THE HOT-WATER DOUCHE IN PARTURITION.

Dr. Albert H. Smith, in a paper read before the Philadelphia County Medical Society (*Phil. Med. Times*, Aug. 16, 1879), claims as facts proven by experience that the hot-water douche (110° to 115°) thrown upon the cervix uteri or the rim of the undilated os will stimulate contraction of the longitudinal and oblique muscular fibres of the uterus into an expulsive effort, while the circular fibres surrounding the os relax under its influence; 2d, that a similar douche thrown into the cavity of the relaxed and bleeding uterus, after the expulsion of the fetus or the placenta, will produce prompt and vigorous condensation of the uterine walls, with an immediate closure of the sinuses; and, 3d, that a like application to a bleeding surface from laceration in the passage of the child through the pelvic canal will arrest the hemorrhage at any point, whether it be from a tear of the circular artery in the cervix, or from rupture of the vascular tissues upon the anterior margin of the vulva about the vestibule, or from the furrows upon the posterior wall and the labia.

Dr. Smith has found the application to the cervix of the hot douche thoroughly and rapidly effectual in the first stage of normal labor at full time, almost equally rapid in a rigid condition in an accidental premature labor, and more slowly—though with ultimate effect—in the induction of labor in a quiescent uterus. The method of application is simple. The patient should lie upon her back, with a bedpan placed far under her sacrum, so that there should be no danger of the water getting upon her clothing.

The injection should be thrown into the vagina with a syringe with a rubber tube and metal nozzle with a large hole in the end, and Dr. Smith prefers the Davidson bulb-syringe, as the stream can be driven with more force, and with the intermittent action necessary with that instrument. A quart to three pints of water medicated with 3 ij of 90 per cent. solution of carbolic acid, or $\frac{3}{4}$ ss of Labarraque's solution should be thrown into vagina. The pipe being directed *against* the cervix, not into it. The douche may be repeated every hour or two, according to the demands of the case, or the violence of its results.

The condition in which we get the most signal effects from the douche is that of uterine inertia after the placental delivery, and in this condition Dr. Smith is inclined to think that we have an absolutely reliable agent to control bleeding—an agent

* *Dublin Med. Press*, July to December, 1862.

which may reduce the terrors of post-partum hemorrhage, and make its fatal termination an almost impossible event if applied at any time while power of reaction is not entirely exhausted.

The nozzle should be carried on the index finger into the vagina, while the opposite hand grasps firmly the uterine globe. The fingers in the vagina may be moved about freely to break up clots rapidly, there being sometimes a complete distension of the vagina with firm, hard coagula. The stream is kept up continuously, washing out as fast as the clots are loosened; the nozzle is to be carried to the os uteri, and directed into the orifice. If the coagula in the uterus are loose and not abundant, the force of the stream may be sufficient without carrying the finger into the uterine cavity, but if the hemorrhage has been great, and the uterus largely distended, it is better boldly to introduce the pipe, guarded by the finger, and, moving it around gently, let it, with the aid of the stream, detach from the intra-uterine surface all shreds of membrane or small coagula which may be found adherent to the surface, and which, if not removed, will act as centres of coagulation. While this is going on, the hand upon the uterine tumor feels it steadily and, generally, instantly contracting, condensing itself into a firm, hard mass, receding completely into the pelvic cavity below the brim. The water passing from the vulva is soon observed to be free from color, and the hemorrhage is arrested. A uterus after such accident ought to be carefully watched and compressed in the hand of the accoucheur or of an assistant until all probability of secondary relaxation is over.

Finding the use of the douche so successful in controlling hemorrhage, it has naturally followed to adopt it as a preventive, and for nearly two years past Dr. Smith has been resorting to its use habitually (or at least whenever at all easily practicable) in every case of labor. The apparatus is made ready during the latter stages of labor, and so soon as the placenta is delivered, the douche is administered precisely as just directed for the relief of hemorrhage, except that it will rarely be necessary to carry the finger and the pipe farther than the os uteri (the internal os, the external os, and cervical cavity being expanded at this stage). The vagina is thus cleansed and disinfected by the water—medicated as before—the clots are washed from the lower segment of the uterus, and the organ stimulated to contract—which it does firmly, rarely showing a disposition to relax, and often remaining low down in the pelvic cavity below the brim for twenty-four hours; and in no case so far, where satisfactorily done, has any flooding occurred after it. After-pains are diminished greatly, and the lochia but slightly abundant.

As to any danger from the absorption of the carbolized solution, it seems almost impossible, where the outlet of the uterus is so patulous as it is after labor, that any fluid could be retained in its cavity long enough to be absorbed; but the recent statements of so reliable an authority as Fritsch, that serious consequences have followed its use in some cases, would make it desirable that every precaution should be taken against such retention.

THE BEHAVIOUR OF SPERMATOZOA IN THE VAGINA AND UTERUS.

Dr. D. HAUSMAN, of Berlin, in a pamphlet on this

subject, gives the result of a considerable number of selected observations, made with all suitable precautions, with regard to the duration of the life of the spermatozoa in the vaginal mucus, and it that of the cervix uteri. He records seventeen observations of the cervical mucus, and twenty of that from the cervix uteri, obtained in cases in which he could rely upon the account as given as to the last coitus; and in which no vaginal injections had been used, either shortly before or since the coitus. Out of a much larger number which he has made, he has rejected the greater part, because the data in these respects were not absolutely certain. These observations agree with those of Marion Sims and others, in showing that the spermatozoa perish quickly in the vagina, but retain their life and activity for a much longer period within the cervix. So soon as four hours after coitus, he found that the great majority of spermatozoa in the vagina had been seen to move, although a considerable number retained their vitality. In five cases in which the last coitus had occurred about twelve hours before the examination, the spermatozoa were found to be all dead, except in one instance, in which a few were seen to be moving amongst a large number which were motionless. The case was one in which an acute antelexion existed, which would hinder the advance of the spermatozoa towards the uterus, while the widely patulous external os would allow them readily to escape from the uterus into the vagina. In six examinations of vaginal mucus about fifteen hours after coitus, the spermatozoa were found abundantly present in all, but none of them showed signs of life. Four examinations were made from thirty to thirty-eight hours after coitus. In one of these the vaginal mucus, which was mixed with urine, showed no spermatozoa; in two, they were abundant but dead.

In one case, however, in which coitus had taken place thirty-eight hours previously, and menstruation had commenced twelve hours later, living spermatozoa were found in the mixture of vaginal mucus and menstrual blood. The author entertains no doubt that these had penetrated into the uterus, and had been washed down again in the menstrual flow. In a case examined forty-six hours after coitus no spermatozoa could be detected in the vagina, although they were present in the cervix uteri.

In no case, even when the examination was made within an hour after coitus, was the reaction of the vaginal mucus changed from acid to alkaline, by the addition of the alkaline seminal fluid.

The general conclusion is that the great majority of the spermatozoa perish in the vagina very shortly after their deposition there, and that none of them retain their motion there, beyond twelve hours at the outside, unless menstruation has come on in the meanwhile.

To obtain the cervical mucus for examination, the author exposes the os by the speculum, wipes away from it first all adhesive vaginal secretion, taking care to brush it away from and not towards the os, and then obtains a drop of mucus from the cervical canal, by means of dry forceps, sound, or Braun's syringe. In order to obtain the secretion from the body of the uterus, he first thoroughly cleanses the whole of the cervical canal from all the secretion which it contains. As to the presence of sperma-

tozoa in cervical mucus, the results are the following: In six observations on cases in which the external os was normal in size and position, and its secretion almost normal, at various times up to a week after coitus spermatozoa were *always* found. In ten similar cases, in which the observations were made eight and fourteen days after coitus, spermatozoa were absent. In four observations, made within a week after coitus, with the os uteri normal in size, with normal secretions, but somewhat deviating from its normal position, spermatozoa were always found. In one observation on a similar case, made seven and a half days after coitus, in a case of normally patent os uteri, but decided uterine catarrh, no spermatozoa were found. In two observations on the same case, in which the external os was moderately constricted, and deviated somewhat to one side, in one instance, one and a half hours after coitus spermatozoa were found, in another four hours after coitus none were found. In four observations on cases of great constriction of the external os, spermatozoa were absent in all.

The author concludes from these facts that normally, as Marion Sims also holds, the spermatozoa are not merely deposited in the vagina and left to make their own way into the uterus, but that they are impelled into the cervix at the moment of ejaculation. He attributes this in the main to the pressure of ejaculation, although he does not assume any exact apposition between the os uteri and the orifice of the male urethra. This view is confirmed by two of his observations in the case of women accustomed to use twice a day with an irrigator a vaginal injection of a litre of a solution in the one case of sulphate of copper, in the other of carbolic acid (1 in 50), both of which are well known to destroy spermatozoa immediately. Although these injections had been used shortly before coitus, abundant living spermatozoa were found in the cervical mucus within six hours after that act. He also quotes in favor of his view the success of the practice of preventing the occurrence of pregnancy by placing a tampon against the cervix uteri. He concludes that the occurrence of conception through the migration of spermatozoa from the vagina, or from more external parts, into the uterus, by their own activity, must be regarded as an exceptional chance; and believes also that even if they should make their way into the cervix after some interval, their vitality and power of surviving many days would probably be impaired by their sojourn in the vaginal mucus, which so quickly destroys them. He infers further, that by even a moderate contraction of the external os the penetration of the spermatozoa into the cervix is rendered uncertain, that by a considerable contraction it is prevented as a rule, and that therefore the operation of incising a narrow external os for the cure of sterility is a justifiable one.

In the vaginal mucus the proportion of spermatozoa was always considerably less than in a remaining drop of semen removed from the male urethra after coitus and before the first micturition. In the cervical mucus their number was relatively very few, and the author concludes that only a very small proportion of them normally reach the interior of the uterus. Besides the living spermatozoa found in the cervical mucus, a considerable number of

dead ones was always found also. The longest period after coitus at which living spermatozoa were found was seven and a half days, a period exceeded in an observation of Percy, who found them alive after eight and a half days. The longer the interval after coitus the less active were the movements of the spermatozoa, and the sooner did they cease to move after removal from the body. The author concludes that it is probable that they may retain their vitality for as much as ten days before reaching the ovum. That stringy cervical mucus is not necessarily fatal to spermatozoa was proved by an observation in which living ones were found in abundance in a plug of such mucus.

The author rejects the plan of intra-uterine injections of semen for the cure of sterility, believing that normally only a few of the spermatozoa themselves reach the body of the uterus by their own activity, leaving behind the other constituents of the semen. In cases, however, of stenosis of the internal os, or of flexion causing a narrowing of the canal near that situation, or the secretions being healthy, he proposes, within the first twelve hours after coitus, to pass a large sound into the uterus, in the hope of thus carrying on beyond the point of obstruction some of the spermatozoa containing cervical mucus. He does not, however, report any result obtained in one case in which he repeatedly tried this measure.

—*Obstet. Journ. of Great Britain*, August 1879.

NEWS ITEMS AND NOTES.

Dr. Wm. O. Moseley, Jr., who recently lost his life on the Matterhorn, graduated from Harvard Medical School last year. He was an excellent student, and as house pupil at the Massachusetts General Hospital acquitted himself with credit. He was an enthusiastic mountain climber, and several years ago made a tour through Switzerland, during which he accomplished many difficult ascents. He was repeating his tour this summer, having become an expert mountaineer, and, in fact, was a member of the London Alpine Club. His over-confidence seems to have proved his destruction. The summit had been successfully reached, and on the return the most difficult part had been passed, when in spite of the warnings of his party, he loosened the rope which bound him to them. In vaulting over a rock his foot slipped, and he slid rapidly over the snow below. This had become hardened by the frost, and his frantic efforts to stop himself were of no avail. His body was found two thousand feet below, stripped of clothing and almost unrecognizable. He was buried in the church-yard at Zermatt, by the side of victims of former accidents on this treacherous mountain. — *Brit. Med. and Surg. Jour.*

Laxative Bread.—Mr. W. H. Taylor, in the *Lancet*, says that he has bread prepared as follows, and found it most useful in constipation and as a laxative in piles: Coarse Scotch oatmeal, whole wheat flour, coarse ordinary flour, of each equal parts. The bread can be lightened by yeast, or, to a two pound loaf, one tablespoonful of baking-powder, made of four ounces of bi-carbonate of soda, three ounces of tartaric acid, one pound of ordinary flour, rubbed well together and kept dry in a tin or well corked bottle. The bread keeps well, and a two pound loaf will be sufficient for a week, baking a portion once or twice a day in conjunction with ordinary bread.

Modesty.—The following recently appeared as an Editorial in the pages of one of our contemporaries. It was signed in full by the Editor, who is also the president of the "Faculty" described.

"Our Professor of Mental Diseases is a man respected and consulted by the leaders of the nation, both in medical and

political councils; a man who has been the Superintendent of our State Lunatic Asylum, and on whose head numerous honors have been placed by the medical profession, while he now holds a high position of trust as a civil officer. Our late Professor of State Hygiene, only temporarily off duty, and still a member of the Faculty, has been repeatedly President of the State Medical Society, and now holds high positions in the Boards of Health of the State and the Nation, being known everywhere as one of the greatest medical men of the time, though he does not need spectacles or crutches. Our Professor of *Materia Medica* is known all over this country as an able diagnost and an experienced practitioner, and has frequently been the choice of his people as their political leader. Our Professor of Chemistry was the highest medical graduate and University medalist of 1855, in Edinburgh, and his work on *Cretinismus* the only English one on the subject usually quoted. He controlled the largest, next to Richmond, of the Medical Purveying Departments, C. S. A., for nearly four years, and was selected by the Medical Department as one of the Examiners of Surgeons for that army. Our Professor of Medical Jurisprudence is acknowledged as one of the ablest jurists and orators of the Tennessee bar, and is the speaker selected by his party to plead its cause in East Tennessee at the present time. Our Emeritus Professor of Anatomy has had no superior in the medical schools of America, and the relics of his skill are the proud ornaments of two medical schools in this city, nor is his successor far behind him in skill or erudition. He is young, and youth is a recommendation for his position. Twenty years of practice, in which he has achieved the highest success and reputation, have established the standing of the Professor of Obstetrics, and thousands of charmed auditors can testify to his ready conception and easy delivery as an orator. That the Professor of Practice of Physic is not so very young, is shown by the fact that he served his country, both as a soldier and a surgeon in the civil war, and that he has "brains," is proved by the effect which his brilliant rhetoric and trenchant sarcasm have on the enemies of our school. Our first Professor of Surgery will ever be remembered as the greatest surgeon America has yet produced; his mantle has fallen on his son, who adds youth and careful training to the teaching of the life-long experience of his father. The State and county societies, the medical profession, and the public have combined to place our Professor of Gynecology at the head of his profession in public esteem, and countless, grateful pupils acknowledge the excellence of his teaching. The Professors of Eye Diseases and Systematic Surgery, are men eminent in their branches, here and abroad, and lack neither years nor "brains." All the other teachers are men of whom any institution might be proud."

Dr. Wm. H. Green, recently a student of Prof. Wurtz in Paris, and translator of Wurtz's *Elements of chemistry*, has been appointed demonstrator of practical chemistry at the University of Pennsylvania, to assist Prof. Wormley.

The *Boston Journal of Chemistry* tells of a lady who suffered with sciatica, for which she sought physicians in vain. Hearing of a man who was similarly afflicted, she called on him in hopes of learning from him something that would mitigate her suffering. "Do you," she asked, "find anything that affords any relief?" "Yes, marm," he replied, "two things." "Pray, what are they?" "Cursin' an' swarin'," said the pious invalid.

A new disease.—A german infinitesimal professor named Winkle, has discovered a new disease which he has christened "Cyanosis a febrilis icterica perniciosus cum hæmaglobinuria."

There is little doubt it will become fashionable and *take well*. It is getting decidedly "vulgah" to have such ordinary things as measles, whooping cough, etc.—*Country Practitioner*.

"My dear doctor," said an Irishman, "it's no use you giving me an emetic, I tried it twice in Dublin, and it would not stay on my stomach five minutes."—*Country Practitioner*.

ARMY NEWS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM SEPTEMBER 5, 1879, TO SEPTEMBER 12, 1879.

J. H. Janeway, Major and Surgeon. Assigned to duty as Post Surgeon, Fort Columbus, New York harbor, and Attending Surgeon Headquarters Military Division of the Atlantic. S. O. 58, Mil. Div. of the Atlantic, Sept. 5, 1879.

Charles Smart, Capt. and Asst. Surgeon. Relieved from duty in the Department of the East, and to report for temporary duty to the President of the National Board of Health, Washington, D. C., for chemical and microscopical work. S. O. 204, cs. A. G. O., Sept. 4, 1879.

R. S. Vickery, Capt. and Asst. Surgeon. By direction of the Secretary of War, the operation of so much of Par. 3, S. O. 195, A. G. O., Aug. 25th, 1879, as relates to this officer, is suspended until Oct. 4, 1879. S. O. 208, c. s. A. G. O. Sept 9, 1879.

W. R. Steinmetz, Capt. and Asst. Surgeon. Having been found by an Army Retiring Board incapacitated for active service, is by direction of the Secretary of War, granted leave of absence until further orders, on account of disability. S. O. 209, c. s. A. G. O. Sept. 10, 1879.

H. S. Turrill, Lieut. and Asst. Surgeon. Assigned to temporary duty as assistant to the attending Surgeon at headquarters Military Division of the Atlantic, and to the Post Surgeon Fort Columbus, New York Harbor. S. O. 58, Mil. Div. of the Atlantic, Sept. 5, 1879.

J. M. Banister, Lieut. and Asst. Surgeon. Relieved from duty at Fort Leavenworth, Kansas, and assigned to duty at Fort Reno, Indian Territory. S. O. 171, Dept. Missouri, Sept. 3, 1879.

Sept. 13.—List of changes in the Medical Corps of the Navy for the week ending Sept. 12, 1879.

Sept. 9.—Surgeon J. B. S. Mackie, to the naval rendezvous, Philadelphia, Pa.

Sept. 10.—Medical Inspector, J. C. Spear, to the U. S. S. Trenton, and as Fleet Surgeon of the European Station, per steamer of the 20th of September.

Sept. 10.—Medical Inspector, D. Bloodgood, to be detached as Fleet Surgeon, European station, on reporting of relief and return home.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot possibly take to supply back numbers either now or in the future as we have no regular entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and test to see all who favor us by so doing, will certainly continue their subscription thereafter. All we ask is a trial.

LECTURES.

A LECTURE ON PERITONITIS.

Delivered at the College of Physicians and Surgeons, N. Y.

BY
ALONZO CLARK, M. D., LL. D.,

Professor of the Principles and Practice of Medicine.
(Reported for THE HOSPITAL GAZETTE.)

This disease is important from the great extent of the membrane, which is arranged in the form of an irregular sac, with no openings of any great importance. It is important in its connections with liver, intestines and stomach, for when a viscus is inflamed and the inflammatory action reaches the surface it will involve the serous membrane of that viscus, and consequently, when a membrane is inflamed the action will proceed to a limited extent to the viscus. As regards degree, this serous inflammation stands next to *arachnitis*. This is not a very common inflammation, much less frequent than the inflammation of pleura and pericardium. Pleurisy is most common of all. To me it seems that peritonitis is most common in mountainous districts. I think I have seen more of this disease in Vermont than in all other places together, including hospital practice. I shall consider peritonitis under four heads. 1st. Sporadic peritonitis. 2d. Peritonitis from perforation. 3d. Puerperal peritonitis. 4th. Chronic peritonitis, which is almost always associated with tubercles. We may have any of the three products of serous effusions, but there will always be plastic exudation which will be found more posteriorly on account of the supine position which these patients assume. In the ordinary forms there will be serum and fibrin. Pus is very rarely found alone. In the chronic form the plastic effusion will be organized in layers, the greatest quantity on the surface of intestines. Tubercles will be usually found in connection with the organized matter. Purulent effusion is frequent in the 2nd form of the disease.

SPORADIC PERITONITIS.

The rule is that this is a very painful disease, and that the pain begins at one point and spreads rapidly. This symptom is observed early in the disease. A chill does not commonly occur. The pulse does not feel the influence of the disease until a later period, as a rule. I believe that we have no acute inflammation where the pulse runs up as high as it does in peritonitis. Constipation of an unyielding character exists in the height of the disease. This is as complete as if produced by some obstacle in the intestinal canal. The inflammatory condition extends just through the muscular coat of the intestinal canal (the same plexus of vessels supplying both the muscular and peritoneal coats). When a muscle is inflamed it cannot act, and to this paralysis is to be attributed the constipation; as long as

the intestines are in this condition cathartics can only do harm by exciting inflammatory action in the mucous coat. This constipation lasts the whole time that the inflammation is severe.

Vomiting frequently begins in the early stages of this disease, and is due to reflex action of par vagum. The contents of stomach are first thrown up, then the greenish "*spinach like matter*," whose color and appearance is due to biliverdine. The explanation of this fact is not known but it occurs in other diseases. Gaseous extension or tumefaction of abdomen called tympanites or meteorism is present in first twelve hours. This gas which is chiefly $C O^2$, is contained in the intestinal cavity and not in the peritoneal cavity. It does not readily escape and this forms one of the differences between this and other diseases. The tympanites is one of the most common and marked symptoms of the disease. The countenance becomes pale, with the expression of calmness; features are somewhat pinched. This condition is known as the "Hippocratic countenance." The mind is generally clear. The urinary secretion is not generally affected, but there may be inability to pass urine from adhesions of the bladder. There is no special condition of tongue, sometimes slightly furred.

The causes are: 1st. The obscure causes which produce inflammation.

2nd. Perforation of stomach, colon or vermiform appendix. Perforations of stomach are from two causes.

1st. Perforating ulcer, which occurs near the pylorus and sometimes partly in the stomach and partly in the duodenum. This ulcer appears like a little "well" and causes thickening of tissues to the extent of $\frac{1}{4}$ in. When perforation takes place the contents of stomach pass into the peritoneal cavity and persons die in 12 or 16 hours, though they often live to the second or third day. There may be ulceration of stomach without endangering life as in spinal or aphthous sore mouth of children. They are not of common occurrence because ordinary inflammation does not produce them. This however, must not be taken for the erosion caused by the solvent action of the gastric juice after death. In protracted diseases this erosion does not take place because it is not apt to be taken to any extent previous to death. Some years ago an ulcer was found in a Bellevue patient 3 in. by $2\frac{1}{2}$ in. extending to pancreas and liver and producing erosion and opening two large vessels of the liver, which gave rise to fatal hemorrhage.

2nd. Stomach may be perforated by cancerous disease and then it is rapidly fatal. These are the only causes of perforation of stomach. Perforation of intestine at duodenum may result from an ulcer and is much the same as perforation of the stomach; this form is *less rapid*. I have never seen an instance of perforation of jejunum. Perforation of ileum may happen in *typhoid* fever near the ileo-cæcal valve; pain will first be felt on the right side low down. The whole colon is susceptible to perforation during acute *dysentery*, or from *ulcers* or cancerous disease. The ulcer is very much like that in stomach. They are *circular* and have been known to surround the intestine. Ulceration may be produced by a calculus in the gall bladder, but these generally pass

into intestinal tube. The most common seat of perforation is at the vermiform appendix. In this sac a great quantity of substances taken with the food have been found at the post-mortem examination. The most common cause is fecal accumulations, which fill the sac and cause ulceration, though I cannot recall a case of peritonitis in children under 14 years which did not occur from perforation at vermiform appendix. The pain begins at R. I. fossa and extends along the transverse colon; this disease always yields to treatment and seems subdued, but soon breaks out again with greater severity. In healthy persons there is a tendency to adhesion and to form a sac to contain the effusion for a day or two, but as it accumulates the sac breaks and so produces the symptoms over again. This feature seems to be distinctive of perforation at vermiform appendix. The effusion which is purulent gives rise to dulness. In a few instances the disease is not fatal, the pus being discharged by some opening.

Peritonitis is apt to be confounded with *bilious colic*; this is not an inflammation and is not attended with any paralysis of muscles of intestines, but depends upon an unusual contraction of the muscular fibres. There is no increase in the frequency of the pulse for some hours while in peritonitis this happens early. Colic is relieved by pressure in beginning but there is some tenderness after a while. No tympanites as in peritonitis. Obstruction of intestines is taken for peritonitis but here there is no increased pulse.

Under proper treatment a considerable number will recover, but whatever is done must be done with energy, as the natural duration of the disease is "*four days*." Blood letting both general and local has been practised to a considerable extent in the treatment of this disease. Dr. Armstrong proposed bloodletting followed by a full dose of opium, as the latter perpetuated the effect of the bleeding; but while he looked upon both as necessary, if he could have but one he preferred the opium. Drs. Palmer and Child of Vermont treated their patients by the Armstrong method in 1844 with success. When I first adopted this mode of treatment eight recovered, the ninth died. The rule is to give as much opium as the patient can take without being narcotized. Begin with grs. ij. to iv every two hours until the symptoms of narcosis begin to show. In the case of a hospital patient grs. iv. were given and the dose increased gr. j. every hour until a gr. xii. dose was taken. One objection to this plan of treatment is that it requires the attention of the physician who should always administer the opium himself. It is not important which preparation of opium you use but use the same from beginning to end. If pills are used they should be freshly made up every twelve hours. You are to give the opium by its effects and not by quantity; these effects are *sensible contraction* of the pupils, marked reduction in the frequency of respiration, diminished frequency of pulse, gentle perspiration of skin, *itching* of the mucous membrane of the *nose* and easy but very much protracted sleep from which patient may be easily aroused. The pain first disappears. Tympanites continues until inflammation is subdued. Let the bowels alone for one week longer as they will move when inflammation subsides. The influence of opium is to be kept up until peristaltic action is re-established. The dose may then be diminished and when a spontaneous movement occurs it may be suspended

altogether. A full dose may be required at night to produce sleep. I believe I have seen peritonitis from perforation cured by opium. In this form there seems to be a tendency for sealing up and the opening gives time for this healing process to be more complete. No other mode of treatment has been successful. Strong coffee and the cold effusions are to be used as antidotes in poisoning from opium. With a fair amount of caution and these two antidotes you will not be likely to lose a patient. I do not know of a single death produced by opium in this disease.

PUERPERAL PERITONITIS.

This form of the disease, called also *puerperal fever* and *metro-peritonitis*, occurs in lying-in women, although it may occur independent of *parturition*. It is liable to happen within thirty days of the occurrence of parturition, but generally within the first week, and greatest liability on the *second or third day*. This disease and its associate metritis are believed to be contagious for those in the same condition. There is no doubt but that it may be conveyed by the physician, although this is denied by Dr. Meigs, of Philadelphia. This disease has some connection with the cause which produces *erysipelas*. We rarely hear of one case alone, it is much more apt to be *epidemic*, and the effusion is *purulent*. The fatality of the disease, until lately, was enormous. In Bellevue Hospital not more than one in twenty-eight recovered. Now we have much better results, and the disease is much more manageable in private practice. Metro-peritonitis is much more commonly attended by a chill. It is far less often attended by pain, and this leads to mistakes in the diagnosis. The paralysis of muscular coat of intestines is not so great, and hence constipation is not so obstinate, and cathartics are not forbidden. The other symptoms are quite regular. The inner surface of uterus is always inflamed in puerperal peritonitis, so that I have given the name of *endometritis* to this condition. On examination there is found a pasty secretion on the walls of the uterus, which resembles thick *glue* and of the color of *beef brine*. Sometimes the whole interior of the organ is lined with this adventitious material, made up of blood, pus, and fibrin, formed into fibers, not unfrequently with cells. This indicates a most *intense* form of inflammation. The uterine sinuses may be inflamed and purulent matter deposited in their cavities. Pus is then mingled with the blood, and all the symptoms of pyemia are present. From this symptom it has been called *purulent uterine phlebitis*. These uterine sinuses open on the inner surface of uterus by valvular mouths, situated where the placenta was attached. The inflammation passes over these mouths very readily into the veins, and it is this which makes the disease so dangerous. The *lymphatics* of the uterus take on the same kind of action, and those in the neighborhood of the round ligament are subject to purulent inflammation. The ovaries are enlarged and covered with lymph. There are evidences of inflammation in Fallopian tubes; purulent matter exudes by pressure. The fibrinated extremities are deeply congested and covered with lymph. In some instances the Graafian vesicles are destroyed by this process. Puerperal fever, in which peritonitis is the leading feature, is much more easily cured than

puerperal fever with metritis, the difference being in the purulent effusion. The symptoms of this are suppression of the lochia for twelve or twenty-four hours, pulse frequent and very small, *extreme prostration like that in pyemia*, impaired digestion. The *perspirations* constitute the chief features of the disease. These take place after six to ten days, or in the second week. The first is usually preceded by a chill, but after this they come on without any reference to the chill. They seem to be conservative in their action, for without these the elimination of pus cannot take place. Abscess of the breast, or broken breast, may result from the sympathy of the breast with the uterus. Again, an abscess may occur in the iliac fossa, and obtain a great size, so as to open spontaneously, or require opening. The woman dies in a few days from the depressing influence of the pus upon the nervous system. The opium treatment is used in cases where peritonitis is a most prominent element. In Bellevue Hospital five out of six were cured by this treatment. Besides the opium, these women took a few doses of *ver viride* to diminish frequency of pulse. Norwood's mixture of *veratrum* may be given, dose *gtt. v.*, when the opium has reduced respiration but not the pulse. It produces great nausea, attended by prostration and a tendency to syncope. Alcoholics are to be used when such effects are produced. It is a very good treatment to give opium and *ver viride* in alternate doses, and this is all that is necessary. In *metro-peritonitis* opium does not serve any important purpose, and it is useless to give it, except to *soothe* the patient. Leeches to the vulva or perinæum and bleeding promoted to a great extent. Opium *grs. j* or *ijj* every two or three hours. Injections of warm and tepid water into vagina and uterus. The *veratrum viride* treatment has been introduced and is successful. During the period of purulent infection *quinia sulph. grs. (xv per day)* combined with *morph. sulph.*, to reduce irritability. If there is a tendency to the formation of abscesses food and stimulants will be necessary.

CHRONIC (OR TUBERCULAR) PERITONITIS.

A somewhat rare disease, usually dependent upon *tubercles*, but sometimes upon *cancer*. Occurs mostly in young persons, say from *ten to twenty-five* years of age. Is very insidious in its approach, and not usually made out until far advanced. The symptoms constitutional, are those of pulmonary tuberculosis, viz: paleness, emaciation, loss of strength, and frequency of pulse. *Constipation of Bowels* alternates with *diarrhœa*, which is easily explained by the lesions existing. The peristaltic action being hindered by the glueing of the intestines together, *fæces* accumulate. These in short time indurate mucous membrane and produce a free watery secretion, which constitutes the *diarrhœa*. The cause of irritation being removed by this discharge, the bowels become quiescent and constipation again ensues, and so on. The bowels are persistently tumefied and tympanitic. Tubercles (miliary) are on or under the pleura, and a low grade of inflammation is set up. A thin layer of fibrinous exudation is poured out on surface of pleura. This speedily becomes organized. Upon this new tissue another exudation takes place and this in turn receives another, and so layer

after layer is formed until the contents of the abdomen become so welded and hidden in the exudation that it is impossible to distinguish anything with certainty. Although tubercles almost invariably exist in the lungs at the same time it sometimes happens that their symptoms are not well developed, and the phthisis may be far advanced without cough or other rational signs of its existence. As a rule the treatment can only be palliative. (Yet Dr. C. has seen two cases recovered.) We know tubercles *can* be softened and absorbed. There is no theoretical reason why recovery should not occasionally take place. Fresh air, nutritious diet, cod liver oil, tonics, stimulants (in moderation,) with counter irritation (iodine being preferable,) are the chief remedial agents. The afternoon fever may be controlled by quinine and *acidi sulph. arom.*

ORIGINAL ARTICLES.

THE DIAGNOSIS OF SMALL-POX.

BY

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In connection with my duties in the health department of this city, I have very frequently been called upon to affirm or correct many diagnoses of small-pox that had been made by physicians in all parts of the city and of all grades of skill and experience, and the more I see of such cases the more I am impressed with the fact that, considering of how comparatively frequent occurrence small-pox is, and with what marked characteristics it is in almost all stages accompanied, the great bulk of the profession have still much to learn in regard to distinguishing it. Having by force of circumstances, enjoyed exceptional advantages for the study of the symptomatology of this disease, I may, perhaps, be able to shed some little light on a subject which is at any moment liable to be forced on the attention of any practitioner.

The disease most frequently confounded with *variola* is *varicella*; and perhaps it would be best, for a clear understanding of the subject, to go over briefly the history of the latter disease as it is most frequently encountered in this city, and for description given in most of the text-books is both vague and contradictory. One will tell us that it never occurs in adults, thus Thomas, in Ziemssen's *Cyclopedia* says, "I have never seen it in an adult;" another, that it is sometimes met with in grown people; a third that it is frequently so encountered. One author will say that the eruption is never umbilicated, another will inform you that more or less umbilication is generally present. Hence, if the young practitioner, who derives his impressions from standard text-books, should happen to meet with a case and endeavor to "read up" on it, we can easily understand how, the more he attempted to clear up his ideas, the more he would be mystified. Frequently there are no premonitory symptoms whatever; the first thing that calls attention to the fact that there is something wrong, is the appearance of the eruption; this is particularly the case with small

children. If there are precursory symptoms they are not often severe enough to alarm the friends, so that a physician seldom has an opportunity of studying the disease in this stage. In adults, however, the case is different; sometimes the precursory symptoms are quite severe; frequently, however, there are none in adults either. When such are present, they may be the same as are met with in almost all contagious diseases; malaise, headache, backache, and fever lasting from a few hours to two days. The period of incubation in these cases where I have succeeded in tracing it, seems to be greater than in any other contagious disease, varying from fourteen to eighteen days. It does not seem to be highly contagious, in spite of what many writers say on the subject, for I have often seen a case occur in a family containing a large number of children and no other members have it, although the disease would appear subsequently in the same neighborhood but at a distance of some houses. Numerous cases of this nature have seemed to me to show that direct contact is not essential, but that it may be spread by means of the air or some other vehicle. When one case occurs, others in the immediate neighborhood are very apt to follow. It does not follow in the wake of small-pox nor precede it as some writers teach.

It is, of course, most frequently met with in children; but, in opposition to what is generally taught, it is of frequent occurrence in adults; I do not, however, remember ever having seen it in any one over forty years of age and it is most commonly encountered in those under thirty. Within less than a year, however, I have met with eight cases of varicella, in patients between twenty-five and thirty-five years old, which were mistaken for small pox by other physicians.

In most instances, the appearance of the eruption is the first sign of the disease. This becomes visible first on the face and scalp and soon spreads to the rest of the body; and as a rule the whole eruption makes its appearance within one or two days, though successive crops may be noticed. At first it consists of hard nodules or papules which to the touch are not round at the top but flattened, resting on rounded bases, like shot cut in two. These become successively vesicles and pustules, the time required for them to mature being in direct proportion to the age of the patient; thus in children, two or three days are generally sufficient, whereas in adults it may take as long as five or six days. The pustules are always, at one time or another, surrounded by more or less of an areola, which in children seems to cling to them, giving them the appearance of little, angry-looking pimples. This soon disappears, at the same time that the pustules dry up into thin, small, light-brown, shriveled crusts. Before this occurs, however, it will be found, on close examination, that in every case some vesicles are umbilicated; this is true both of children and adults, although it is, of course, more marked in the latter, as the vesicles are larger. The time that elapses from the appearance of any one papule to the complete formation of a crust and entire disappearance of the areola, is seldom more than four or five days in children, in adults two or three days longer. Of course, where there is much scratching, the course of the eruption is consider-

ably altered; the inflammation is much greater, the vesicles are much larger, the crusts that eventually form are thicker, and the duration is longer. Generally the disease is not violent enough to cause much destruction of the subcutaneous tissue, though the pitting that is very frequently found when the crusts fall off, shows that some such destruction must have taken place. This necessarily imperfect description, derived entirely from actual observation, mostly of cases that were already developed, must suffice for want of space to enlarge.

Besides varicella, variola is liable to be confounded with measles, scarlet fever, syphilis, skin-diseases, such as herpes, acne, urticaria, etc.

When a physician is called to attend a case in which he has reason to suspect small pox, the first question that arises is, has the patient anywhere been exposed to it directly? Is there any in the immediate neighborhood or in the city? Has he ever been vaccinated, and if so how recently? As regards the latter fact, the physician should never rely entirely on the statement of the patient but should examine the cicatrix himself. If this were done in every instance, many mistakes, especially in young children, might be avoided. If the patient is unvaccinated and there are on the skin but few vesicles, showing no tendency to become confluent or semi-confluent, the idea of its being small-pox may safely be laid aside, as variola in the unvaccinated is always either confluent or semi-confluent. The real difficulty of diagnosis arises in those cases which occur in persons who have been vaccinated. The premonitory symptoms are but little to be relied upon in children, but in adults may often aid in establishing the nature of the disease, though frequently they are here, too, of no use whatever. After our suspicions have been aroused or allayed by the prevalence or non-prevalence of small-pox, and the presence or absence of a good cicatrix of vaccination, our best and safest guide is the character and course of the eruption; for this a careful examination of the vesicles will generally suffice. In varicella, the vesicles are found in the face, scalp, and hands, the same as in mild variola; but in varicella, they are about equally distributed over the whole body, whereas in variola they are most numerous on the face and hands. In varicella in children, the areola is more marked and the vesicles less developed, less regular in size and shape than in variola; and have the appearance of being superficial to the skin looking like small blisters; but in variola they seem as if they had formed beneath the skin and had lifted it up with them. In varicella the umbilication is less constant and is not so well marked as in variola. In varicella, the vesicles seem to have formed on the skin, but in variola they seem to be a part of the skin itself. This superficial character is even more noticeable in adults than in children. Some of the vesicles in varicella change to pustules, losing their pearly-white color and becoming milky or yellowish, on the first or second day; but in small-pox, even in mild cases, they retain their vesicular character and pearly-white color for at least five or six days, and in severe cases for eight or nine days, resembling closely the appearance of a healthy vaccine vesicle of the seventh or eighth day. In varicella, the vesicles do

not all change at the same time, so that vesicles, pustules and crusts will often be seen together; in variola the change goes on more uniformly. In varicella occurring in adults the vesicles may remain as such for four or five days, but they go to the formation of crusts much more rapidly than do the vesicles of variola, and the crust when formed is of a lighter brown and much smaller and thinner. The presence of vesicles on the mucous membranes is by no means a diagnostic symptom of small-pox, as they appear here in varicella as frequently as in mild small-pox. It sometimes happens that it is impossible to make the diagnosis at the first visit, but it will seldom be necessary to wait longer than one or two days, as the changes in the vesicles go on so much more rapidly in varicella than in variola.

There are, of course, many cases in which the vesicles are confluent, semi-confluent, or hemorrhagic, and which are so plainly variolar that there need not be a moment's hesitation; but some cases will, even after close attention and careful and frequent examination, baffle the most astute and experienced observer. In such cases, provided they occur in a neighborhood in which there is no great danger of infection, it is best not to attempt definitely to settle the question until the course of the disease, as shown by the changes in the vesicles, shall decide it. Mistakes are most frequently made in young children and in adults. In both, varicella is very liable to be mistaken for variola. It may aid us in the diagnosis, however, to remember that variola in vaccinated children under ten years of age is an exceedingly rare occurrence, and happens usually where they have been freely exposed, and where the diagnosis is rendered easy by the knowledge of exposure; on the other hand it may assist us to recollect that it is by no means unprecedented for varicella to attack adults. It will be seen, therefore, that the great source of confusion lies in the fact that, while most of the text-books give excellent descriptions of variola, those of varicella are often lamentably deficient. Measles, next to varicella, is most frequently mistaken for small-pox, as the premonitory symptoms are so similar. It is rarely that measles will take on the appearance of variola in children, though sometimes the resemblance is so striking as to make us hesitate in our diagnosis; but in them the first symptoms of the disease, the conjunctivitis, cough, coryza, &c., follow so soon after the malaise and slight fever as to decide the question beyond doubt. But should the nodules in the hyperæmic spots, which bear a close resemblance to incipient vesicles, lead to a suspicion of small-pox, by running the fingers over them it will be noticed that the skin feels natural and does not give the "shotty" sensation of variola. In adults, however, the precursory symptoms are what generally mislead the physician, as they are much more severe than in children, and rubeola, though common in children, is rarely met with in adults. The malaise, headache, backache and febrile disturbance are much more protracted and severe, delirium being sometimes present, and the symptoms which precede the characteristic phenomena of measles are of much longer duration and almost identical with those of small-pox. At the same time the primary symptoms of the disease are much mod-

ified and altered, the conjunctivitis, coryza, &c., being often slight or delayed, so that the severe premonitory symptoms followed, without other symptoms, by the appearance of hyperæmic spots and papules may easily deceive the physician, especially where the eruption precedes the other phenomena by an appreciable interval. Here, too, the nature of the prevailing epidemic, the history of exposure, and the vaccination will throw much light on the subject; but if the physician should still be in doubt, by trying to rid his mind of all preconceived ideas, and passing his fingers over a spot of eruption he will at once distinguish the difference between the peculiar, slightly roughened, but otherwise natural, feeling of the skin in measles, and its "shotty" feeling in small-pox. Cases of measles in adults are often mistaken for hemorrhagic small-pox, and vice versa; here, in addition to the difference in the feeling of the skin, the amount of cerebral disturbance in the onset of variola is much greater than in measles and death always occurs, usually before the appearance of the vesicles; whereas in measles the most severe symptoms do not appear until several days after the first symptoms, and death is rarely the result. The sense of touch, it will be seen, is the most reliable means of establishing the diagnosis in doubtful cases. In measles, too, occurring in adults, there is a peculiar cough, which is never met with in uncomplicated variola.

Scarlet fever is very rarely mistaken for variola; in fact, I have never known this mistake to be made except when it occurred in adults. It is only with exceptional cases that the characteristic symptoms of this disease, vomiting, sore throat, and high fever, the peculiarly smooth skin, as compared with either measles or variola, and the rapid development of the eruption, will not lead us at once to the right conclusion. Here, as in measles, a short delay will always settle the doubt even in the most obscure cases.

Urticaria, herpes, and other skin diseases may be and have been, especially in their early stages, mistaken for small pox; but an inquiry into the previous history, the absence of continued fever, and the mere bearing in mind the possibility of the mistake, will suffice to allay the suspicion.

Syphilis, which presents us with an infinite variety of eruptions, not uncommonly, in its gross appearance, strongly resembles small-pox—so closely, indeed, that it is only by the previous history and the absence of fever that a diagnosis can be reached. This is particularly liable to happen in congenital cases appearing during the first year, and often the period during which the inherited taint usually manifests itself. In doubtful cases occurring in adults, the absence of itching and the presence in other parts of the body of the peculiar livid discolorations left by old syphilides, will settle the question, even though there be a papular or vesicular eruption on the face—the appearance which generally misleads the observer. In infants congenital syphilis occasionally manifests itself as a vesicular or pseudo-vesicular eruption of a confluent character, and having the peculiar, pearly-white appearance of variola vesicles, with perfect umbilication, and covering, more or less completely, the entire body,

resembling very closely confluent small-pox. It is particularly in these cases that the absence of all signs of severe illness, the continued playfulness and natural demeanor of the child should cause the physician to throw aside the idea of variola. I subjoin the history of a few of many cases, reported as cases of variola, which illustrate more tangibly what I have endeavored to describe above :

CASE I.—Varicella, mistaken for variola: Lady, age 32, taken sick evening of Dec. 31st and Jan. 1st with severe headache and backache, and pains in all her limbs. On evening of second day five vesicles were noticed on abdomen, and on next morning (Jan. 2d) separate vesicles appeared all over the body, scalp, face and limbs, though there were very few on the hands, at the same time all previous symptoms disappeared. Some were very large, well-umbilicated vesicles, and around each there was a considerable areola. An intense burning of each vesicle, resembling the bite of an insect, which lasted until the crusts formed, was particularly complained of by the patient. No vesicles developed after Jan. 2d. I saw this case for the first time on Jan. 4th, and found the body covered with vesicles, more especially on the arms and lower extremities, where some were very large and well umbilicated, and others were of varying sizes, some small, situated very superficially, elongated and umbilicated. A few vesicles were already ruptured on the scalp and face. The majority of them were not yet fully developed, though some of them had already turned a faint yellow; but there were no clear vesicles on any part of the body, and all that were umbilicated were quite dark in the centre. Jan. 5th, vesicles drying up rapidly, all decidedly yellow, dark spot in centre, though some areola still remains. Jan. 7th, no vesicles or pustules on any part of body, and only very few crusts remain. These were very thin, light brown, and disappeared within the next twenty-four hours—about nine days after the first symptoms spoken of above.

CASE II.—Varicella, mistaken for variola: Man, 35 years old. Said he began to feel weak June 3d; have headache and restlessness. June 4th had two attacks of vertigo and felt weaker, had severe pain in calf of leg which lasted one hour. June 5th, very weak in bed all day; no appetite. The evening of June 6th felt considerably better, and found an eruption on legs with some itching; this had spread on June 7th over whole body. June 9th, body pretty well covered with vesicles, some on the back very large and irregular in shape; not so many on face, hands or feet as on other parts of body; all discrete; areola surrounding each vesicle, which vary in size from pin-head to split pea; some still forming, while others are desiccating, some pustular; none umbilicated. Temperature normal. June 12th, nearly all the vesicles began changing rapidly. June 13th, small, brown, thin crusts had formed on all of them.

CASE III.—Measles mistaken for confluent small-pox: Man, aged 21 years. June 1st, was taken sick with severe backache, headache and general malaise. June 2d, had about the same feeling. June 3d, had several slight attacks of vertigo, very severe headache, so severe that he was compelled to give up work. June 4th, somewhat delirious, very high

fever, face intensely congested. June 5th, he was seen by a number of physicians who pronounced it confluent small-pox; he was very delirious, skin intensely red, and whole body covered with profuse papular eruption. Conjunctiva was considerably congested, patient had some coryza and bronchitis, with the characteristic cough of measles. These symptoms were overlooked by the physicians, who saw him as he was lying in a dark room. June 6th, all unpleasant symptoms had disappeared, and the man was able to sit up all day.

CASE IV.—Syphilis mistaken for confluent small-pox: Child, 4 weeks old. Broke out with a fine rash over whole body. This continued developing until the twelfth day after its first appearance. On the seventh day of the eruption the family physician unhesitatingly pronounced it variola. On the tenth of the eruption the vesicles were distinct, well-developed, about the size of a split pea, depressed in the centre, and, with the exception of the depression, perfectly flat on top, rather more so than in variola, and, on close observation, the vesicles were seen to be spongy and had a spongy feel. They were of uniform size, and extended completely over the body, excepting the palms of the hands and the soles of the feet. The mucous membranes were not at all affected. There was very little, if any, febrile excitement. The child did not seem to suffer in the least, and nursed well throughout the disease. The eruption lasted about five weeks, and came off in scales, leaving the surface of the entire body dotted with circular, brown spots. This was followed by small abscesses in various parts of the body. At about the beginning of the third week of the eruption potass. iodid. was given, and continued for about two weeks. Neither the father nor the mother gave a complete history of syphilis, though the mother has had two miscarriages and six children at full term, two of whom died shortly after birth.

HOSPITAL RECORDS.

THE PENNSYLVANIA HOSPITAL, PHILA.

SERVICE OF JAMES H. HUTCHINSON, M. D.

(Prepared for THE HOSPITAL GAZETTE.)

CEREBRAL MENINGITIS.

M. N., æt., 31, colored, single, born in Virginia, admitted January 2d, 1878. The patient's father died of consumption and one of her sisters of paralysis, but the rest of the family history, as far as it can be obtained, is good. Her mother says that she has been subject to convulsions since the age of three, and when quite a young girl began to show evidences of scrofula. She has had frequent abscesses situated upon her extremities and trunk, from each of which dead bone has been discharged.

Her mother states that when she was fourteen years old, and was living on a plantation in Virginia, she was attacked by her master on one occasion when he returned home much intoxicated and was almost killed. She succeeded in making her escape from him, when it was discovered that her right shoulder was dislocated and that there was a subluxation of the left knee joint. She was so badly

beaten and bruised that she was obliged to keep to her bed for a year afterwards. Her knees, according to her mother's account, only began to swell after she was beaten. Since that time the convulsions—so-called—have been more frequent. Menstruation began at the age of twenty-one, and has been very irregularly performed ever since. She has suffered much from dysmenorrhœa. The convulsions are more frequent at the menstrual periods but are by no means confined to those times.

In the winter of 1875-76, she had a succession of chills, followed by cough and expectoration, which was first tenacious and yellowish, but afterwards mucopurulent and blood stained. She had one or two slight hemorrhages. She then suffered from headache, vertigo and faintness for about a week. Soon after this, while sitting at table, she fell to the floor unconscious and remained so all day. She had no actual convulsion nor did she foam at the mouth. She was completely aphasic upon recovering consciousness. Her head was turned slightly to the left and rigidly held there. The left arm and leg were also rigid and powerless. The right hand was also slightly affected and there was some rigidity of the right knee. There was also divergent strabismus of the right eye, with diplopia and flashes of light before the eyes.

In one week the power of speech returned, and in the course of one month she had regained the power of motion in the right arm and leg and left arm. At this time the patient's bowels were constipated and there was retention of urine requiring catheterization.

In the summer of 1876, she had anorexia, nausea and vomiting, and great pain in the abdomen which was very sensitive to pressure. She also had headache. About December, 1876, she had two copious hemorrhages from the lungs. Soon afterwards her articulation became imperfect, and in February 1877, she had a violent convulsion which came on during sleep. On this occasion she foamed at the mouth and lacerated her tongue severely. She was unconscious for some hours, and upon recovering was again completely aphasic, and had paralysis of the muscles of deglutition, which lasted for one week and necessitated the use of nutritious enemata. There was no paralysis or rigidity of the muscles of the limbs, or face, but her vision became much more indistinct than before. After this attack she was in bed about three months, and during that time she was constipated and had occasional retention of urine. The pain in her abdomen also returned after this attack. In August, 1877, she was admitted to the Pennsylvania Hospital, suffering from abscess in the side. While in the hospital she had a convulsion, in which she foamed at the mouth and bit her tongue. After this she had aphasia for a short time. Three months later she had a fourth convulsion and has been confined to her bed almost ever since. The abdominal pain returned after each of her last convulsions, and upon admission is still present. She denies all venereal taint, though she has suffered much from sore throat. She has had a vaginal discharge for a long time.

Upon admission (second time, January 2d, 1878), the patient is quite thin and her body and legs are covered with cicatrices, the seats of former abscesses,

but upon the left leg are several shiny superficial scars.

There are also signs of old synovitis of the right knee, and the ligaments of the left knee are very lax allowing great freedom of motion of the leg in every direction. The middle finger of the left hand has its distal articulation semi-dislocated. There is divergent strabismus of the right eye. There is some dulness over the right chest posteriorly. The respiratory sounds are feeble and there is a trace of alopophony.

Urine acid, sp. gr., 1018, no albumen.

Jan. 3rd.—Ordered mist. gent. comp. f 3 ss, t. d.

Patient had an attack last night, which lasted but a short time, in which she became unconscious without any convulsion.

Jan. 8th.—Ordered potass. iod. gr. x t. d. and mist. gent. comp. was dropped.

Jan. 10th.—There is a dwindling of the right leg below the knee. The right calf measures 10¾ in. and left calf 12½ inches.

Jan. 11th.—Patient complains of pain upon micturition. Vaginal examination reveals a prolapse of the womb and considerable leucorrhœa. Ordered injection of alum. gr. xxx, Oj of water.

Jan. 15th.—Ophthalmoscopic examination reveals atrophy of the disks, the result of former choking. (Dr. Norris).

Jan. 16th.—Considerable pain in abdomen.

Jan. 17th.—Patient says that she passes blood by stool. Once or twice in the past two weeks she seems to have lost the power of articulation for an hour or two at a time though not her consciousness, and upon coming to has stated that she had severe pain over the region of the heart.

Jan. 18th.—Patient improving decidedly. Strabismus much less marked.

Jan. 19th.—Ordered ol. morrhœæ, f 3 ss. t. d. Iodide continued.

Jan. 21st.—Improved very much.

Jan. 31st.—Complains of pain in left chest. Slight friction can be distinguished on left side posteriorly. Ordered counter-irritation.

Feb. 2nd.—About the same.

Feb. 7th.—Pain and swelling in right forearm and on right leg for which poultice was ordered. Complains of pain all over body. Patient has on her legs the marks of many old sores.

Feb. 10th.—Not so well. Went out yesterday. Pain in left side apparently pleuritic, for which ordered plaster.

Feb. 11th.—Complains much of pain in side. Respirations jerky and fifty-eight to the minute. Pulse very feeble; suspended iodine and oil. R. Quinine and port wine. Mustard and poultice to side.

Feb. 12th.—Complains still of much pain. Magendie m. vi. Quite weak. Temperature 100°. Dr. Da Costa finds friction at base posteriorly.

Feb. 14th.—Somewhat better. Less pain. Very poor appetite. (Ward now under care Dr. Da Costa).

Feb. 16th.—Put patient on tinct. verat. virid. but Doctor ordered it stopped to-day (ordered on twelfth).

Feb. 18th.—Pleuritic effusion at left base posteri-

only. Consolidation of right apex. Slight friction at right base. Bowels opened on Saturday.

Feb. 23rd.—Last night great pain in both temples and in left side. Morphia given.

Feb. 26th.—Discharged improved. Patient inquired if there was much hope of recovery and being told "no" she decided to go home. She was a most marked case of the scrofulous diathesis. The small abscess on the forearm which was opened showed a grey tubercular matter which had a certain elastic feel. This matter would not discharge itself and the abscess showed no signs of healing. The sores on her legs which were not opened were apparently of the same character.

SELECTIONS FROM JOURNALS.

INFLUENCE OF THE ATMOSPHERE ON OPERATION.

Professor Trélat, in a recent clinical lecture, drew attention to some facts which seem to prove that the condition of the atmosphere exercises a certain influence on traumatic lesions. He pointed out that the older surgeons, and even those of a more recent period, always put off operations that were not very urgent till certain seasons of the year. Roux, who operated on a large number of cataracts, always kept the operations for spring; and this tradition was probably based on observation. All the cases of acute septicæmia observed by M. Trélat occurred in June, in hot and sultry days. One case was that of a very healthy woman in her fourth confinement, all her labors being remarkably easy. She began to feel ill on the first day, and was worse the second day; on the third day the case was hopeless, and she died on the fourth. At the same time, M. Trélat had been operating upon a man suffering from cataract in both eyes. Everything had gone well, and the operation promised to be a very successful one, but during the night the patient suffered much from the heat, and was very restless; the eye grew worse, and in a few days suppuration set in. Another case was that of a woman in whom he operated for cancer of the breast during June. For the first four days, all seemed to go well, but on the night of the fifth day the patient suffered intensely from the sultry weather, and passed a bad night. Next day the sore presented a very bad aspect; the patient became slightly delirious towards night, erysipelas set in, and she died on the eighth day. A patient was suffering from multiple fistula and stricture of the rectum. M. Trélat performed rectotomy by means of the galvano-caustic loop. The patient did not lose a drop of blood, and the operation was done under excellent conditions. Towards night, however, he felt a little restless; during the night a profuse foetid diarrhœa set in; and the temperature in the axilla rose to 102.2°. These symptoms grew worse the following days; and on the fourth day the patient died of acute septicæmia. Three years ago, M. Trélat was called upon to perform perineoraphy on a young woman in whom the perinæum had been lacerated during parturition. The operation had, against his will, been put off from April to June. It happened to take place on

a very hot day, but everything went on so smoothly that the best hopes were entertained, till at night, when the patient became flushed, restless, and died of septicæmia four days after the operation. M. Trélat particularly insisted on these facts, because, although they all took place in different years, yet they occurred at the same season and under the same atmospherical conditions. He also compared them to the remarkable results at which M. Davaine has recently arrived. He found that a very small quantity of septicæmic blood, when injected under the skin of guinea-pigs, caused death within thirty hours if the operation were performed in summer at a temperature of 82° to 86° Fahrenheit. When the experiment was repeated in the winter, not one of the animals died as long as the dose remained the same as in the summer. M. Davaine concluded from his experiments that the two-thousandth part of the septicæmic matter needed in the cold season was sufficient to kill a guinea-pig in summer. Another curious fact is, that the seasons seem to exercise no influence on rabbits, who die both in winter and in summer from the same doses. However, M. Trélat thought it impossible not to trace a connection between these experiments and the facts which he had observed, especially as the latter were not isolated. Thus M. Cauchois, in his thesis on the etiology of hemorrhages, mentions that a few years ago, on a very hot day in June, more than a hundred cases of secondary hemorrhage were observed in the hospitals in Paris. It must be added that M. Cauchois shares M. Verneuil's views as to the fact that most secondary hemorrhages are of septicæmic origin. It may therefore be admitted that in these cases we meet with septicæmic accidents which have been caused by the influence of the temperature. M. Trélat has also shown long ago that the seasons have a great influence on the mortality in the lying-in-hospitals. The practical conclusion which may be drawn from these facts is that, so far as operations are concerned, the summer season itself is not to be dreaded so much as the sultry days, or the great heat which often comes on suddenly and unexpectedly. Therefore, it will be safer to avoid as much as possible performing any operations during this season—*Brit. Med. Journal.*

DEDICATION OF THE NEW HALL OF THE NEW YORK ACADEMY OF MEDICINE.

The profession of this city has at last a Hall of which it may be proud. The new Library Hall of the Academy of Medicine is furnished, and is one of the most pleasant rooms we have ever been in. The Dedication of the Hall will take place on the evening of October 2nd, when short addresses will be made by some distinguished gentlemen from abroad, and by some of the Fellows. It is expected that Dr. Arland, Regius Professor of Oxford University; Mr. Callender, the distinguished surgeon of London; Dr. Gross, of Phila.; Dr. Billings, U. S. A., Washington, and others will address the meeting. The profession of this city and vicinity are invited to be present. The Hall is situated at 12 West 31st St.

THE HOSPITAL GAZETTE.

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and the Collateral Sciences.

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NEW YORK, SATURDAY, SEPTEMBER 27TH, 1879.

EDITORIAL.

THE CLINICAL TEACHER.

Whatever of excellence is required in the successful practitioner, must abound in the clinical instructor; but whatever of tinsel and demonstration is tolerated in the one, assisting him to win popular favor and rewards, must be omitted when the work of mind-culture is entered upon. The stream that is to multiply itself, branching into many rivulets, watering many lands, should have water purer and more strength-giving than the one that flows, however grandly on, to lose itself in the mighty ocean.

All of the accomplished physician's powers of observation, his patience, skill and dexterity must certainly be among the gifts of the clinical teacher, and as the standard of his qualifications is high, so will his fitness for this labor be determined. This pure excellence and avoidance of show, is the first demand of the clinical, as it is of other instructors. Whoever undertakes to mould the intellectual character of others, should be conscious of his ability, have an inward recognition of his power, and should enter into the work, only when his fellows have repeatedly urged him,—confirming his own estimate of his fitness by their expression of preference. It must be remembered that the physician or the surgeon may become great in his practice, measuring his greatness by accumulations of wealth and by

patients' blessings; the fame of his skill may travel through many lands, but he may lack the power to transmit that which constitutes his greatness to others. He may be an able practitioner, but Nature may have forbidden him her chiefest blessing, the power to call forth an intellectual progeny of his kind. Even excellence in the profession, however marked, does not ensure these clinical instructors.

The sun is grand, not merely that it gives light, but that it transforms its countless satellites into light givers; the clinical instructor is truly great, not merely that he scatters the blessings of healing among his patients, but that he arms others, his pupils, with a skill and devotion like his own, for their fields of labor. His light shines upon them and is reflected from them, and therefore his influence for good far outlasts the brief span of his life-time. Such men of medicine, and only such as are endowed with this transmitting power, reach the pinnacle of greatness in the profession; they are great in many

It seems proper for us to be explicit in describing the essentials of the medical teacher, as they appear to us, since we have frequently and purposely spoken derisively of the work put forth by some who forced themselves into the responsibilities of that position. We have urged one essential already, eminence in the profession, and we can group the rest in the single statement, he must be a teacher; must be possessed of qualifications, such as hordes of men and women claim to possess, when they resort to teaching as a stepping stone, or to secure pin-money. The title, "Professor," the style, "lecture," and the school "college," will neither increase nor diminish the responsibility of clinical instruction; these high sounding names cannot alter the nature of the task. Mental culture, it was and must be, therefore a teacher is demanded to perfect it. Because many unfitted for the duties of genuine teaching have dishonored themselves by taking its pecuniary rewards, while not honestly earning them, teaching has not been made less honorable, and the true teacher need not envy the station of any other. Proficiency in mind culture and excellence in medicine are the essentials of clinical teaching.

This teacher must have a charm of manner that will arouse the mind of his fellow-being to action, and keep it in subjection to his own willingly. It is not enough to rivet the gaze of a hearer, a staring look while the mind is "wool-gathering"—but there must be in the teacher a moral, an intellectual and a physical energy, that shows a mastery of the subject discussed, a power to transfer that mastery to others, and a readiness to overwhelm the slightest approach

to inattention. There must be the appearance of this energy in the instructor, else there will be no assurance of attention from the pupils. Failure in securing the voluntary attention of pupils should deter an honest man from further effort at instruction. He can no more succeed in that than he can fill a bottomless pail with water. The fault is serious and pitiful, but is irremediable. Let him quickly forsake the task, for some other, as able as he in professional lore, and with a cunning hand will take the vacant place, by whom the pail will be mended and filled. A medical lecture room adorned with smiling, lolling, cheering and restless students is a poor compliment to a lecturer's ability; his charm is not in his tongue. Whoever can endure such compliments must have little judgment and seriously blunted sensibilities. Some "lecturers" have such adornments at their performances regularly, yet do not appear to comprehend their significance, so thick-skinned and insult proof are they. The truth is apparent to others,—these lecturers have not that charm, which is the inheritance of teachers only, and more, they lack the judgment which should tell them of their mistaken calling.

Careless and superficial "lecturers" are successful as gaze-riveters; their title attachments, grace of manner and choice speech gain them rank as telling professors. Their first efforts are dazzling to the medical infants, because of their rhetorical charms, the well rounded periods and apt gesticulations. The pupils are pleased, like darling babes with large extravagantly painted balloons. Both, the pupils and the babes, weary of their gas bags, and arrange a collapse. The gas disappears, and the rest shrivels into a small compass.

These showy characters were not, as their present course indicates, diligent and honest seekers after truth in their student days; they did not delve deep, nor sweat in overcoming hinderances. They caught what came with ease, gold and dross, or pure gold.

Such men did not acquire the power or habit of critical and accurate observation, learned to build their inferences upon the first indications, grasped a passing notion as an inspiration from on high, and clothed it in glowing words which their greatest mental power, their imagination, gave them. They are not able to give more to others than they have secured for themselves. They are dangerous as teachers, for they have gathered errors, which the lapse of time has served to develop and incorporate as truths in their minds, and these errors, they spread. They scatter tares broadcast.

Memoriter tyrants constitute another class of pretenders. They compel their followers to worship

Words, to reverence General Principles. They are unconscious of the truth that general principles are worded generalizations of facts frequently observed by former pupils, mostly deceased, and are words, and only words to him who has not observed the facts. To students, general principles at first are jargon, for man paints poorly with words. The teacher must point to the actual fact, the reality, again and again; after this comes the generalization. Facts, plain facts first, then words, have sense as well as sound.

We might continue indefinitely, and with good purpose, to hold up for condemnation these incompetents, who, from love of publicity or of money, assume this responsible position, but it is more pleasant to picture some of the more prominent points of the true clinical teacher.

The clinical instructor must forget his age, dignity and himself; must be a student, not far advanced, but such a one as he sees before him. Every aspect and indication presented by the patient in the amphitheatre must seem to give him the same trouble, surprise him as much, and complicate him as it did in his freshest college days; his powers of observation must work as slowly and tremulously as his pupils; his fears and hopes, as the investigation progresses, must wander through the same degrees; he must be thoroughly an original investigator, more diffident, however, than his pupils; he must have that sympathy which can read the intellectual pulse of his class, and tell the precise moment proper to show to them his mastery, by his counsel and relations of experience, by his handiwork and his treasures of thought. He must never anticipate this moment, if he would have self-reliant pupils.

This teacher goes among a party who, in the great darkness as of night, seek a road, untrodden by them before, but of which they have heard an indefinite description. They have their lanterns and the light from his must not outshine that from theirs, else their lanterns are useless. The road must seem as strange to him and the darkness as intense as to them. He must act with them and take their counsel as to progress, and only reach the end with them, as pleased as they. If the stronger light of his lantern be at any time necessary, he must be the judge of when and how much to let it shine, and when to make them rely upon their own again.

The clinical teacher must be to his students a student as ignorant as they, as eager in the search for knowledge as he would wish them to be; yet he must be the foremost learned in his profession. One who has reached that lofty summit and is idolized

for his attainments, who can apparently divest himself of his well-merited honors and be a simple, earnest investigator, like his pupils, and such a one only can reach the highest degree in medicine; he can make his satellites light-giving.

CORRESPONDENCE.

Dr. Bermingham:—

DEAR SIR.—The author of the following paper on Fractures of the Epicondyles, Dr. Zuckerkandl, Demonstrator of Anatomy in the Vienna University, has kindly sent to me the specimens to which the paper refers, and if you publish the paper, which my friend, Dr. Theo. H. Kellogg has translated for me, I will add a few words of criticism. The subject has been to surgeons one of curious scientific enquiry, and has also been regarded as one of practical importance; and the very able paper of Dr. Zuckerkandl certainly throws much additional light upon the subject, whatever we may say of the specimens.

In reference to the specimens, there are some circumstances which render it proper and even necessary that I should subject them to a fair criticism, in order that I may publicly accept or reject them. The circumstances to which I refer are, the distinguished position which Dr. Zuckerkandl occupies; his well-known reputation as an anatomist and as a contributor to anatomical and pathological science; the fact that he has published his opinions of the specimens, and thus put them upon record as unquestionable examples of these fractures, at the same time quoting me as having an opinion that the fractures of the external epicondyle had not yet been proven—and especially the fact that he has in a spirit of frankness always becoming scientific enquiry, put the specimens into my possession; thus affording me the opportunity to examine them, and at the same time leaving me no opportunity to avoid the expression of an opinion.

"ON THE EPICONDYLAR FRACTURES OF THE HUMERUS."

BY

DR. E. ZUCKERKANDL.

Demonstrator of Anatomy, Vienna.

"The fractures of the epicondyles of the humerus, to judge from the reports of surgeons, are often observed in the living subject and exceedingly seldom on post-mortem examination, as is readily understood, since the injury is so slight that a curative process ensues directly. For the anatomy of this fracture, therefore, we have to look to accidental discoveries at autopsies, and whether the latter have not been carried out on a sufficiently extensive scale, or these fractures are not statistically so numerous as there is an inclination to suppose, one thing is certain, that preparations of epicondylar fracture, the description of which in literature was available, belong to the greatest rarities. To confirm this view, I will quote only three authors, who have treated the whole subjects of fractures with perfect

mastery, and have collated the literature with an assiduity that leaves nothing to be desired. In vain, then, did I look in the large atlas of Malgaigne for a clear case of epicondylar fracture. I found in the text, in reference to the fracture of the external epicondyle, a sentence, which I cite verbatim, as best characterizing the view taken. It reads thus, "Quelques écrivains modernes ont aussi parlé d'une fracture, qui ne pénétrerait pas dans l'articulation, et n'affecterait que la petite saillie de l'épicondyle; mais personne jusqu'à présent, n'en a cité d'exemple."

"Gurlt, (work on Fractures, Berlin, 1862), writes that notwithstanding the frequent occurrence of fractures of the internal condyle, (I think this is a misprint for epicondyle,) the collected material is so meagre, that he can only refer to one preparation of actual fracture of the internal (?) condyle, and that belongs to the pathological collection in Würzburg, and shows the separate bone reunited by callus. According to the drawing, which Gurlt gives of this case on page 797 of his work, however, it would not seem to be strictly one of epicondylar fracture, as a certain portion of the *cresti interna humeri* is involved. This holds true for the case of fracture of the outer epicondyle, which Gurlt describes on the 798th page of his work, for here too something more than the epicondyle was broken off.

Hamilton, (Fractures and Dislocations, translated into German by Dr. Rose Göttinger, 1877), who also had no preparations of epicondylar fracture at his command, writes of fractures of the external epicondyle as follows: "I mention this fracture, which some writers have set down as a fact, simply to express my conviction, that its existence has never been diagnosed. Though we admit the possibility, this epicondyle, like the corresponding internal epiphysis, may be separated by muscular force, we must still deny the probability of it, since this portion of bone is so very small. For the same reason we must be permitted to doubt, whether a separation that has actually taken place can be recognized in the living subject. Moreover, if an actual fracture at this point had taken place from outward violence, it is sufficiently clear, from a consideration of the anatomical relation of the part, that it would extend more or less into the joint, and involve the condyle likewise." It is plain enough from all of the above, that the pathological anatomy of epicondylar fractures has been much neglected; and that an addition to our knowledge of this subject is very desirable. Now I have at my disposal two preparations, one illustrating the fracture of the external, and the other that of the internal epicondyle, and I believe I shall add something to the anatomy of the question by the following description of the two cases. In the first place, though, I must consider some anatomical point relative to the epicondyle, and tending to explain views that have been heretofore entertained.

"The inferior extremity of the humerus proceeds from a synostosis of five separately-developed portions of bone. These are: 1st, the humeral diaphysis, which includes the supratrochlea fossa, a minute portion of the eminentia capitata, and on the dorsal surface the ribbon-like zone of the trochlea; 2d, the trochlea; 3d, the eminentia capitata; 4th and

5th, the epicondyles. On the fully-formed humerus that part is called the internal epicondyle, which projects lever-like above the trochlea, and serves as the point of origin of the flexor group. Though this bony prominence presents itself as a united whole at this stage, still, an examination of the humerus, in the earlier periods of its development, teaches us, that the internal epicondyle of the adult consists of two pieces, the superior of which belongs to the humeral diaphysis, to the median surface of which the osseous nucleus of the epicondyle applies itself, enlarges, and finally unites with the upper portion to form the lever of the flexor group of muscles. Accordingly what, in ordinary acceptance, is called a fracture of the epicondyle is something more, since it includes also a part of the humerus. It is difficult to believe, that only that part of the internal epicondyle, which corresponds to the epiphyseal centre of ossification, should be broken off in the adult, so that distinct cases of epicondylar fracture can occur only in youthful persons.

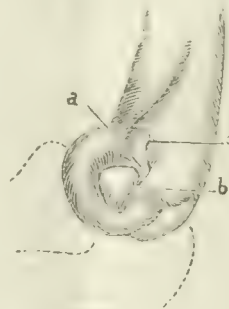


"What we call external epicondyle, on the completely developed humerus, and a small portion of which (called "*la petite saillie*," in the above quotation from Malgaigne,) can be felt and seen through the skin of the arm in lean subjects, belongs, as taught by embryological observation, not properly to the external epicondyle, but represents the most inferior prominence of the *crista externa humeri*, with which the more posteriorly extending epiphyseal nucleus of the external epicondyle finally unites. The epicondyles of adults, therefore, belong partly to the humerus and partly to the actual epiphyseal epicondyles, as a glance at the humeri of young persons teaches us. From the real internal epicondyle, which we term epiphyseal, arise the *radialis internus*, *ulnaris internus*, *palmaris longus*, and a small portion of the *pronator teres*, while from that part of the epicondyle, which belongs to the humeral diaphysis, arises the greater portion of the *pronator* above named. On the external epiphyseal epicondyle are found the common extensor of the fingers, the *ulnaris externus*, and the *anconeus quartus*.

"After this brief anatomical explanation, we proceed to the description of the two preparations.

"The separation of the internal epicondyle I found on the left arm of the strong-boned man. After the removal of the flexors, the epicondyle appeared projecting forwards tumor-like, but immovable, so that at first sight I thought of a fracture healed by callus. As I removed the dense connective tissue, which surrounded the epicondyle, there appeared a furrow, which encircled the irregular bony promi-

nence, and formed a sharp line of demarcation between it and the humeral epicondyle. The tumor-like bony prominence, therefore, represented the epiphyseal epicondyle. On farther examination it was seen, that the epiphyseal was connected with the humeral epicondyle only by dense tissue, was irregularly formed on its uneven upper surface, slightly concave on its superior attached side, and of about the size of an *os lunatum*.



"In figure 1, is plainly seen the intact humeral epicondyle, b, the epiphyseal epicondyle, a, and between them the above described furrow, which was filled with fibrous tissue. The separated epicondyle does not correspond in form to that of a youthful person, nor to the inferior part of the flexor condyle in the adult. Its long axis in the latter is parallel with that of the humerus—in our preparation, however, it is sagittal, twisted as it were on its axis. The inferior portion of the epicondyle is in the adult about one half cm. distant from the edge of the trochlea, but it is more than one cm. removed in this preparation; so that the lateral surface of the trochlea is very deep.

"The fracture of the external epicondyle I found likewise on the left extremity of a male adult.



"After the removal of the extensors, there appeared in the inferior portion of the *ligamentum laterale externum* an irregularly formed plate of bone, fifteen mm. long, nine mm. wide, and $\frac{3}{4}$ mm. thick., the superior end of which proved, on closer examination, to consist of an independent bit of bone. The humerus presented an irregular fossa corresponding in form to the opposing plate of bone. The latter did not lie in the fossa, but it was drawn so far down that its lower edge touched the capitulum of the radius. In figure 2, the plate of bone is laid back in the fossa—a, is the smaller, and b, the larger piece of the bone which was broken off. In figure, 3, d, shows the fossa above the *eminentia capitata*. That this plate of bone corresponds to the epi-

physial epicondyle cannot be doubted by any one, who will take the pains to compare the preparation with a humerus in which the epiphyses are still isolated. The circumstance that a second small bit of bone is present, connected with the larger piece by fibrous tissue, can be explained by the fracture of the external epicondyle, though it is also supposable, that originally two epiphysal nuclei were developed.

"From this description, and from an examination of the figures, it would seem clear, that we have to do here with separation of the actual epicondyles. In the first of these cases, I fully considered whether there might not possibly be a persistence of the epiphyses, a thing that sometimes happens, as observed by Rambaud and Renault—still, the deformity of the bones, the displacement, and the intervening fibrous tissue compelled me to abandon this idea. The latter circumstance I considered important, since I have a preparation from the skeleton of a fully developed person in which a complete differentiation, of the two pieces has not taken place—there had been no substitution of the cartilaginous tissue by connective tissue.

"In conclusion I would once more give prominence to the fact, that there are distinct fractures of the epicondyles, and that they belong to the category of epiphysal separations."

We always labor under serious embarrassment when we attempt to interpret dead-room or museum specimens whose clinical history is unknown. We have found a great many specimens of supposed fracture of the head of the humerus, of the acromion process, of the coracoid and coronoid processes, of the neck of the femur, &c., long retained in museums and published as authentic, which would not bear the test of a critical examination, and which had to be rejected; they being found to be in fact only examples of abnormality, of imperfect development, or of disease.

On the other hand, clinical records, not verified by autopsies, have led to an almost equal number of errors; and it has been exceedingly difficult, if not impossible to eliminate all the errors of this class from the literature of broken bones. There are many cases in which a correct opinion can only be formed, when we have both the clinical history and the autopsy; and we may say, that many injuries about the elbow-joint are notably difficult to diagnose during life, and that without the history they can by no means always be correctly understood after death.

These specimens have no history. We are compelled therefore to interpret them by their present appearances.

First, of the supposed fracture of the *internal* epicondyle.

The bone is from an adult, as stated by Dr. Zuckerkandl, but he has omitted to mention that the coronoid fossa is small, and the olecranon fossa is nearly obliterated, indicating that for a long time before death the motions of the joint were limited. The presumption is, therefore, that this was an old fracture; a fact which increases greatly the difficulty of determining precisely the original character of the accident.

There is a broad vertical and remarkable facet on the inner side of the trochlea; the outer condyle is probably not normal in its shape, and altogether there are indications that the bone has at some time suffered a very severe and perhaps complicated injury. Perhaps there was more than one line of fracture; possibly a transverse fracture through the shaft at the base of the condyles, or through the line of the epiphysal junction. If such were the fact, the specimen does not illustrate a simple fracture of the epicondyle; but these are points which the ancient character of the fracture does not permit us to determine positively.

Nor has Dr. Zuckerkandl mentioned, what is a fact, that the line of fracture of the epicondyle is vertical to the line of the shaft of the humerus, extending to the base of the condyle and then downwards or parallel to the line of the shaft of the humerus until the separation is completed. This would, strictly speaking, make it partly epicondylod and partly condylod, and including only a moiety, perhaps one half, of each; but we are not disposed to be so rigorous in our demand. It is probable that a true and exact epicondylod fracture never takes place after the bony union is consummated; and it is quite certain that some of the cases reported by myself and by others as epicondylod, but as having occurred in adult life, were partly condylod.

In short we think this may properly be called a fracture of the internal epicondyle, but whether it was a simple fracture cannot now be determined.

The second specimen is supposed to represent a fracture of the *external* epicondyle.

Our objections to this supposition are:

1. There are two ossicula. This the writer of the paper has attempted to dispose of by assuming that the mode of development was exceptional, and that the epicondyle had, in this instance, two centres of ossification instead of one, as is usually the case. A supposition which is possible, but being, to say the least, very unusual, can hardly be regarded as probable, unless accompanied with other very strong confirmatory proofs.

2. The fossa, three-eighths of an inch higher up, which Dr. Zuckerkandl supposes was its original position, does not represent very accurately and very clearly the outline of the united ossicula, nor is it sufficiently deep for their reception. It is smooth and covered in at its base with lamellated bone tissue, resembling in every respect the lamellated tissue of the condyle with which it is continuous. It appears like a natural depression in the surface of the bone.

3. There is a fossa directly under the ossicula sufficiently deep, and of the form of the ossicula, into which they fit accurately.

4. The writer says, and the specimen seems to show that the ossicula are situated in the lower portion of the external lateral ligament. This fact is, in itself, conclusive, inasmuch as no satisfactory explanation can be offered why they should be found in this ligament, and in its lower portion, except that they formed here: that is to say—that they are sessamoid bones—osteophytes, osteoids, or, possibly, cretaceous formations. It is well known that all such formations do occasionally present them-

selves in the fasciculated ligaments, as well as in other fibrous structures. If they had been found attached to the extremity of any of those muscular and tendinous fibres of the extensor muscles, which have their origin upon the external epicondyle, the theory adopted by the writer of the above paper, would have been probable, but in view of the facts, it seems impossible.

It should be mentioned that the under surface of the largest ossiculum is nodulated and perfectly smooth, having, in these respects, the superficial appearance usually presented by bony formations in such situations. Yours truly.

FRANK H. HAMILTON,
43 W. 42d St., N. Y.

ABOUT BOOKS.

Lectures on Syphilis of the Larynx. Delivered at the London Hospital for Diseases of the Throat and Chest, by W. Mac Neill Whistler, M. D., M. R. C. P., Physician to the Hospital. etc. J. & A. Churchill. London, 1879.

The small volume which contains these lectures is full of valuable matter, chiefly clinical. The views of Czermak, Turck, Gerhardt, Roth, Dance, Ferras and others are casually noticed and discussed, and endorsed or refuted according to Dr. Whistler's clinical deductions. The various forms of syphilitic lesions of the larynx are treated of clearly and concisely. The author concludes that the practice of Lewin and Liegeois of hypodermatic injections in syphilis is justifiable in lesions of the larynx, where respiration is being seriously interfered with. A tenth to a thirtieth of a grain of the sublimate freely diluted is used at each injection. The book is a useful contribution to laryngeal syphilis.

SELECTIONS FROM JOURNALS.

DRUG SMOKING.

Our readers are aware that medicated cigarettes, for asthma, catarrh and kindred diseases, have become popular of late, and it is an interesting question whether this mode of administering drugs has any special therapeutical value. Dr. R. E. Thompson has been led to investigate the subject, and gives the results of his experiments in a paper in the *London Practitioner*. He says that the simplest and surest method of combining medicinal agents, so that the smoke may be inhaled and brought into contact with the blood vessels of the lungs, is by using paper soaked in a weak solution of nitre, dipped afterwards into the tinctures or solutions of the drugs to be administered, and rolled

into cigarettes of uniform size. The paper most suitable for the purpose was found to be Swedish filtering paper, which burnt freely and gave out but little odor. The scent of the smoke was, however, so disagreeable that it was necessary to disguise it, and the following formula represents the basis of each cigar: Swedish filtering paper, size 4 in. by 2½ in.; nitre, ¼ gr.; tincture of tobacco (1 in 8) 10 minims; ol. anis., ⅓ minim. A solution of the drug to be experimented on is then prepared, the paper floated on the solution, dried and cut to any required size. An eighth of a grain of opium produced effects which were too intense, and 1-64th of a grain of extract of opium was found to be sufficient for the initial dose. Cigarettes with this amount of opium were smoked by four healthy men, and in a few minutes a decided effect of dizziness was produced. Not more than half the quantity of the drug can have been retained in the lungs. Short accounts are given of nine cases in which this preparation proved useful. In the first, eleven hours sleep were obtained by smoking half a cigarette.

Dr. Thompson sums up his conclusions as to the administration of opium in this manner:

The smoking of opium is especially adapted to cases of harassing cough; the topical effect of the drug is immediately obtained without any part of the dose being wasted on other tissues; moreover, this mode avoids those objectionable effects which are a bar to the use of the drug when it has to be given by the mouth into the stomach. Opium smoking is peculiarly useful in those cases of laryngeal ulceration in which all attempts of deglutition are accompanied with extreme pain, and the topical effect of the anodyne is chiefly sought.—*Boston Jour. of Chemistry*.

MEMORY.

(*Le Progrès Médical*, 19 July, 1879). M. Delaunay read a communication upon memory studied under diverse biological conditions, at the session of the Biological Society, of Paris, of July 12th. His data were derived from teachers, tutors, professors, examiners and theatre prompters.

The inferior races of men, negroes, Chinese, etc., have more memory than the superior. The primitive races, who do not know how to write, have an incredible memory, and for centuries transmit in this way hymns more voluminous than the bible. Prompters and professors of declamation know that women have more memory than men. French women learn foreign languages more quickly than their husbands. Adolescents have more memory than adults. Memory is greatly developed in children, attains its maximum at fourteen or fifteen years, and then decreases. Feeble, lymphatic individuals have more memory than the vigorous. Collegians who, in the higher classes, obtain the prizes for memory and recitation, take these only. Parisian students have less memory than those from the provinces. At the normal schools, at Val de Grâce and elsewhere, those students who have the best memory are not the most intelligent. Memory is more developed

in peasants than in denizens of cities, more in ecclesiastics than in the laity. Memory remains intact in diseases of the left lobe of the brain, and is greatly affected in those of the right lobe; which proves that the right lobe has more memory than the left.

From a physiological point of view, memory is diminished by alimentation, by physical exercise and by education in the sense that the illiterate have more memory than those who know how to read and write. We have more memory in the morning than in the evening; in summer than in winter; in hot countries than in cold climates. Hence, to a certain extent, memory is in inverse proportion to nutrition. Moreover, it is in inverse proportion to evolution, for it is at its maximum in individuals little advanced in evolution; inferior races, women, children, the feeble, in the right lobe of the brain. In conclusion, according to M. Delaunay, there is an evolution of memory which is at first sensorial or verbal, and, finally, intelligent; but memory, properly speaking, diminishes in the course of this evolution.—*Mich. Med. News.*

WOUNDS OF JOINTS TREATED WITH POWDERED ALOES.

M. E. Millet, in the *Arch. Med. ne Belge*, recommends the treatment of articular wounds by powdered aloes. In imitation of the veterinary surgeons, who treat articular wounds in the horse with the best success by means of the aloes powder, M. M. tried it on the human subject, in a case where the index finger had been torn off through the metacarpophalangeal articulation and connected with the hand only by a strip of skin. The finger was placed on a splint covered with wadding, the aloes powder thickly strewn over it,—where it melted by the heat of the hand, and formed an air-tight covering,—and the whole fastened to the splint with a narrow tape, without compress or sharpie. The success was complete: and a useful finger the result; the dressing changed but twice in a fortnight; there was no fever, no pain and scarcely any suppuration. The pain ceased immediately on the application of the powder.—*Gaz. Hebdom. July 14, 1879.*

TREATMENT OF SEMINAL EMISSIONS.

Bumstead gives the following prescription for its special tonic effect upon the genital organs:

	Grams.
R Tr. ferri chloridi.....	iii 90
Ext. ergot. fld. (Squibb's) 3	iii 90

M. et. sig: A teaspoonful in water after each meal.

As a direct means of diminishing the frequency of the emissions, B. recommends:

	Grams.
R Potass. bromidi.....	i 30
Tr. ferri chloridi.....	i 30
Aquæ.....	iii 90

M. et sig: From one to two teaspoonfuls in water, after each meal, and at bed time.

The avoidance of tobacco in all its forms, cleanliness of mind and body, laxatives when needed, and in a word, attention to the rules of hygiene, are to be strictly enjoined.—*American Practitioner, July, 1879.*

THERAPEUTICS OF DIARRHŒA IN CHILDREN.

Smith, in a valuable paper on this subject, makes use of the following formulæ: For Diarrhœa due to dentition, when the gums are hot and swollen, and the child is nervous and irritable:

	Grams.
R Sodii bromidi.....	ss 2
Mucilag. acaciæ.....	
Aq. pure, aa, q. s. ad.	vi 60

Sig: One teaspoonful every three hours to a child between six months and a year.

For flatulent diarrhœa:

	Grams.
R Magnes. calcin.....	i 4
Spts. ammon. aromat. m. xl.	2 25
Tr. assatort.....	i 4
Anisette.....	vi 23 50
Aq. cinnamon. q. s. ad.	iv 124 50

Sig: One teaspoonful every half hour till relieved, for a child from three weeks to four months.—*St. Louis Cour. of Med.*

CHLORAL AND OXIDE OF ZINC IN INFANTILE DIARRHŒA.

Tison highly recommends the simultaneous use of chloral and oxide of zinc in the intestinal troubles of young children. The chloral is given by enema, and the zinc *per os*. A rigorous diet is enforced. The following are two of his favorite prescriptions:

	Grams.
R Hydrate of chloral.....	vi 1 50
Starch water.....	vi 60

One to one and one-half teaspoonfuls for a small enema, twice or thrice a day.

	Grams.
R Oxide of zinc.....	i 1 50
Powdered gum.....	
White sugar, of each...	ii 7 50
Lactopeptine.....	i 3 50
Cinnamon water.....	i 32

One teaspoonful every five hours.—*Journal des Sc. med. de Louvain—Gaz. Hebdom., July, 1879.*

NEWS ITEMS AND NOTES.

Vassar College.—John G. and Matthew Vassar have given to the trustees of Vassar College ten thousand dollars for a Chemical and Philosophical laboratory for that institution.

M. Chassaignac.—This distinguished French Surgeon, especially known as having introduced the drainage tube, died in Paris, August 26th.

Sept. 18, '79.

To the Editor of THE HOSPITAL GAZETTE:

DEAR SIR; I was very much surprised to see my name in connection with an article headed "The Articulations," in this week's issue of your journal.

In the presence of your reporter I cut the slip out from the Student's Journal of London of Aug. 2, 1879 wherein it was published under the following heading.

"The following ingenious arrangement of the names descriptive of the various articulations was drawn up by I. Molling, M.D. of the University of New York and has been kindly communicated to us by the learned Professor of Anatomy therein, Dr. William Darling, F. R. C. S. who is at present in this country."

I regret this very much and trust you will give the credit to whom it is due.

Yours truly,

J. L. LITTLE.

Dr. O. W. Holmes attained, the week before last, his seventieth birthday. The many complimentary notices given of this event, and the very high position assigned to him as poet and writer by the daily press, bespeak his great and justly earned popularity. Viewed from whatever standard, his reputation must be ranked as one of the highest order; but few who know him by his writings only can appreciate the privilege those have enjoyed who have had the opportunity to listen to his marvelous readings of his own poems and addresses. The spirit and fire of youth have in no way been dimmed by advancing years, as the past one has abundantly shown. His professional labors, although but little known to the world at large, have been highly prized by those whose wanderings among the thorny paths of anatomy have been cheered by the enlivening presence of their agreeable guide. We trust he may long be preserved to fulfill these grateful tasks, which it is in the power of but the gifted few to perform.—*Bost. Med. Jour.*

Tape Worms in Eggs.—Various instances have been recorded of the discovery in hen's eggs of minute specimens of the *distoma ovatum*. They appear like a small speck, the size of a millet seed or a pin's head. It is believed by helminthologists that these will develop into one of the varieties of tape worm, and it is wise, therefore, to take eggs hard boiled or otherwise well cooked. A writer in one of the numbers of *Nature* cites several instances where these parasitic bodies have been found.

Dr. Luke P. Blackburn, of Louisville, was elected Governor of Kentucky, September 2d. He was charged during the canvass with being the physician of the same name and surname who, during the civil war, endeavored to infect Northern cities by shipping to them the clothes and bedding of yellow fever patients. This charge he neither denied or confessed, declining to make any reference to it.

American Pork is carefully examined by the authorities of Berlin before being allowed to be put on sale. The official yearly report to August 1st, states that 5,000 hams, and 600 bacon sides were microscopically examined there, of which 109 hams and 16 sides were decided to be trichinous. Two native hogs were also condemned for that reason.

Abdominal Explosion.—The following curious case is published in the St. Petersburg *Medicinische Wochenschrift*. A man had been so severely injured, in trying a new cannon, by the explosion of a portion of the powder, that he died in an hour after being taken to the hospital. His hand had been

shattered, and he was severely burned in the face and other parts of the body. In his left groin was a wound about two inches long, covered with coagulated blood. On passing a sound into this wound it did penetrate into the abdominal cavity, but could be freely moved in all directions between the abdominal walls. The abdomen was then opened, and it was found that both the membranes and the fatty tissues had been torn off from the subjacent muscles. A kind of sac had been formed, which extended to the spinal column on both sides. The abdominal cavity was open on the right side, and filled with large masses of fluid and coagulated blood; the intestines and all the tissues were covered with grains of powder that had been exploded, and the small intestine had in two places been torn from its mesentery. The external abdominal wall was not injured. It appears that the powder must have penetrated into the abdomen through the above mentioned small wound, and subsequently an explosion must have taken place in the abdominal cavity, which caused the terrible injuries that have been described.—*British Med. Journal*.

Cheap Doctoring.—The Columbus Jail practice is farmed out to the lowest bidder. The physician is expected to make three hundred and sixty-five visits a year, and more if necessary, and to furnish his own medicine. The lowest bid this year was forty-nine dollars and ninety-nine cents.—*Mich. Med. News*.

The North Carolina Medical Journal, says that a valuable application of the clinical thermometer consists in its being inserted in the mouth of a garrulous patient for five minutes, thereby securing a proper time, in which the physician can write a prescription.

Spencer Wells recently performed his nine hundred and fifty-fifth ovariectomy, in which he employed bichloride of methylene as the anæsthetic. The bichloride has been employed in over 100,000 cases in England, without as yet a single evil result following its use.—*Mich. Med. News*.

NAVY NEWS.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING SEPTEMBER 19TH, 1879.

Sept. 15.—Pd. Ass't Surgeon A. A. Austin, detached from the Colorado and ordered to Navy Yard, Norfolk. Vice-Assistant Surgeon H. T. Percy, detached and ordered to Coast Survey duty.

Sept. 16th.—Pd. Ass't. Surgeon F. Anderson, leave extended six months.

Sept. 18th.—Surgeon J. W. Coles, ordered to hold himself in readiness for duty on U. S. S. Nipsie.

Surgeon G. F. Winslow, detached from the "Wachusett" and to hold himself in readiness for duty on U. S. S. Vandalia.

Surgeon J. P. Parker, detached from special duty and ordered to the "Wachusett."

Ass't Surgeon Chas. W. Rush, detached from Naval Hospital, New York, and ordered to the Receiving Ship Colorado, New York.

SPECIAL NOTICE.

No subscriber who receives the number of THE GAZETTE, published weekly, is pressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that if who favor us by so doing, will certainly continue their subscription thereafter. All we ask is a trial.

LECTURES.

A LECTURE ON THE USE OF CATHETERS IN THE TREATMENT OF THE HYPERTROPHIED PROSTATE.

Delivered at the College of Physicians, New York.

ROBERT L. WEIR, M.D.

Lecturer on Diseases of the Genito-urinary Organs.

Reported by L. S. HORTON, Graduate.

There is very little to be said with regard to the curative treatment of hypertrophy of the prostate gland. So far as we yet know, there is none, and all that we may attempt is its palliation. There have been a great number of curative measures proposed at one time, or another. A long while ago it was customary to employ the hydrochlorate of ammonia, but time showed it to be utterly useless. Recently injections of ergot and of iodine have been made into the substance of the gland in the hope of reducing the hypertrophy. This treatment was occasionally followed by a certain amount of success, but there was also a considerable amount of risk attending the injections. Death was known to have occurred from this cause in some of Heine's cases.

A much more important question, therefore, is the one as to how we are best enabled to prevent the evils resulting from this hypertrophy. A patient comes to consult you, giving a history of the familiar symptoms belonging to cystitis. You examine him and find perhaps a moderate amount of dulness upon percussion over the site of the bladder. If the patient is fat, however, this symptom may fail you. You ask him to pass his water in your presence, and you may be struck by the peculiarity of his attitude as the urine is passed. He will lean forward, resting his hand on a table or chair, perhaps, and the expulsive effort will be very great. So great, it may be, as to bring down an old hernia or to force out troublesome piles. The urine, too, does not issue forth in a stream but dribbles out, and has often a very turbid appearance in the vessel.

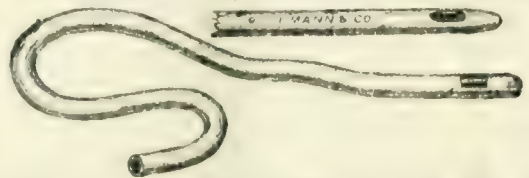
This voided urine will soon become malodorous, and the deeper strata will assume a gluey consistency. In some cases it is possible to turn the vessel entirely upside down without this sticky mass escaping. This matter exactly resembles that produced by the action of liquor potassæ upon pus and is due as we mentioned yesterday, to a similar cause. Sometimes the urine is not only foul, but contains streaks of blood, or the patient may be entirely unable to micturate because his bladder is full of blood. Occasionally this bloody urine when examined will be found to contain villous tufts floating about in it, especially if a metallic instrument has previously been used.

Let me say here, in passing, that if you open the bladder of a person who has died of vesical hemorrhage, or who has had bloody urine you will often find a number of arborescent vessels just around the internal orifice of the urethra. The hemorrhage or blood in the urine has been due to the bursting of these little veins and arteries.

Or, the cause of the hemorrhage may be found in numerous villous growths scattered over the bladder but more commonly met with in its lower part. These are in truth nothing but hypertrophied papillæ enclosing in their thin envelope, vessels of considerable size which are often torn by the efforts of micturition or by the contact of an instrument.

In order to reach a satisfactory diagnosis in a case of presumable hypertrophied prostate it is of service to make an examination of the rectum. Particularly is this desirable since most of your patients will be old men. For if you tell them that it is necessary to introduce a catheter at once, they will be very likely to refuse you such an examination point blank, assuring you that there is nothing whatsoever the matter with them in that quarter and that they can completely void their urine. Old men are proverbially hard to manage. There are very few of them, however, who will not submit to an examination of the rectum and when once you can assure them that the rectal examination has proven to you that the prostate gland is enlarged, your patient is not likely to offer you any resistance to an exploration of the bladder. Then you pass in a catheter and surprise him by drawing off some urine, although he was quite confident that his bladder was entirely empty from his just concluded efforts.

What catheter are you to use? A general rule



is always to select that instrument which does the least violence to the parts, that is, the softest instrument. When we reflect on the sensitiveness of the urethra and bladder so frequently shown after any instrumental exploration, by the onset of what is known as urethral fever, we must appreciate the necessity of using the softest and most flexible instrument and that with the greatest gentleness in manipulation. One of the very best forms of the catheter is that named after the great Nélaton and bearing the trade mark "Jacques, patentee." This instrument is of rubber and is made in England. Lately Messrs. Tiemann & Co., have manufactured similar catheters which possess a great advantage over those of foreign make in one particular, and that is in regard to the eye. In the English and French catheters the eye is punched and its edges are thence always more or less sharp, whereas the eye of the American catheter is moulded, (see Fig. 1 in which both are represented,) and consequently smooth and rounded. The rubber employed in manufacturing the instrument is vulcanized by means of the sulphide of antimony, and it is the conversion of the surplus sulphur into sulphurous acid that hardens and cracks the catheter

when it has long been kept. This is seen in the various specimens that I now show you. But there is another risk attached to the employment of a rubber catheter, and a knowledge of it will enable you to appreciate the piece of advice that I am accustomed to join to the first instructions given to



my patient in the introduction of the catheter, which is always to keep two catheters on hand no matter of what kind. For these instruments of rubber when exposed for any length of time to the action of abnormal urine are liable to soften and swell. The eye itself is particularly likely to enlarge and so form a sort of neck which will be held by the bladder, and frequently your patient will complain of difficulty in withdrawing the instrument, and occasionally if he is not careful the end will snap off and remain behind.

This did happen indeed in one case in my practice but I was fortunately able to seize and abstract the fragment before any harm had been done.

In introducing a rubber catheter, first oil it with carbolized oil, (1 to 10) after washing it in a carbolized watery solution of 1 to 20, and then pass it in slowly. If you meet with any obstacle, take hold of it close up to the penis and introduce it by a series of prods or short pushes, or if this does not overcome the difficulty take hold of the instrument and impart to it a spiral inward twist.

Once introduced, your diagnosis is rendered complete of course by the discovery and withdrawal of residual urine. This condition is pathognomonic. It is your duty, when your examination is ended to explain to your patient as plainly as you can the nature of the obstruction under which he labors, in order that he may be fully and thoroughly impressed with the fact that *he must use a catheter for the balance of his life, even though the residual urine is small in amount and quite normal.* Teach him how to introduce the instrument himself. Tell him to wait a few days after its first introduction before he tries it a second time, and let him make his second trial in your presence, for, what with the failing sight and trembling hands of old age, he will find the easy introduction of the

instrument no child's play at first. For the convenience of patients, I have had Tiemann make

this small flat box (Fig. 2) capable of being carried in the vest pocket and of holding a little vial of carbolized oil and a single rubber catheter, size 8 or 10 of the English scale.

Next to the Nélaton catheter comes the Mercier flexible catheter, "coudée," or "bicoudée," that is having a short elbow single, or double, (Fig. 3) near the end. This bend is the great merit of this instrument, since it causes its end to run along the upper and unaffected wall of the prostate; and should it meet with any obstruction, a slight twist of the shaft will cause the angular end to glide to one side, or the other.

Third, in point of usefulness and durability comes the flexible, conical French prostatic catheter, with a fixed curve, the anterior portion of the shaft being shorter than the posterior. This catheter (Fig. 4)



has an olive pointed end joined to the shaft by a slender easily bent neck, and hence will very frequently pass all obstructions when other instruments fail.

Sometimes when all other soft catheters fail and the case turns out to be one of great difficulty, a Weiss' blunt, English, brown catheter, mounted upon a stylet,—an over-curved stylet, but curved remember to the very end, will, by hugging the superior wall override an obstacle unsurmountable by other methods, or the ordinary elastic catheter introduced with its stylet *in situ* as far as it will go into the urethra, will, by then withdrawing the wire an inch, or two, have an extra curve or lift upward, imparted to its end, and its onward progress thus be secured.

When all milder measures fail it becomes neces

sary to use metallic instruments. These metallic, silver catheters, are of course more expensive, but, they are also much more durable, and so, in reality, cheaper in the end. In ninety cases out of a hundred, however, the rubber instrument is all that you will need.

Of course the metallic catheter requires more anatomical knowledge in its employment, and from its very great rigidity can do more harm if incautiously used. The various forms of this instrument present two widely-different curves—one less than the regulation curve, of one and five-eighths inches radius, and the other much greater than this. I have found the shorter curve to answer the desired purpose much better than the longer one.

In cases where a false passage exists, the instru-

ment is either tight or loose. It is so introduced somewhat rigid, and when the end meets with any obstruction the wire is to be relaxed, so that the end of the instrument may follow with perfect freedom the devious path of the urethral canal. I must confess to you that, with all its great ingeniousness, I am forced to regard the Squire "vertebrated catheter" as a very dangerous instrument. I am always fearful lest while a patient is using it, or while I am using it, the wire should give way in some part and the instrument be withdrawn minus some of its links. A case is known to me in which just such an accident occurred.

In instances of difficult prostatic obstruction with retention, I have occasionally resorted to the use of the fine conducting bougie of Maisonneuve. This instrument affords the greatest amount of flexibility.

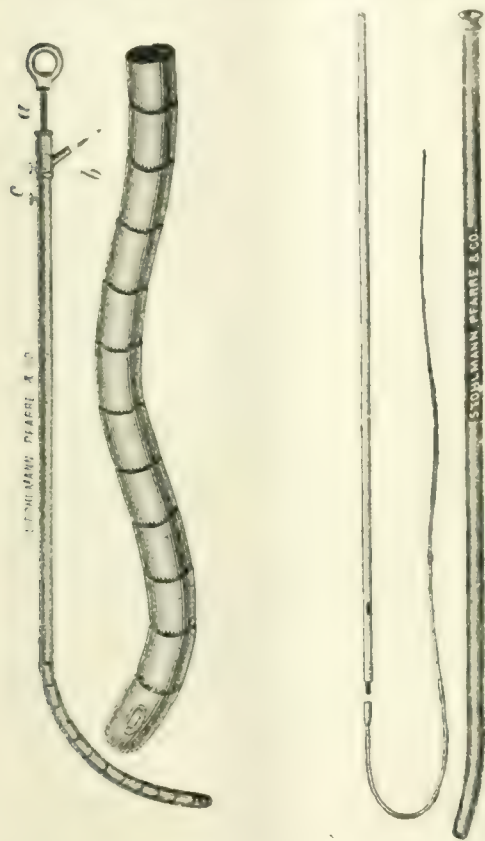
When you have succeeded in introducing it, a slender catheter is screwed on to it, and pushed forward, the bougie curling up, as you know, in the bladder. So soon as the urine begins to escape, a large, flexible French catheter, open at each end, (Fig. 7) is passed up over the smaller one into the bladder.

After the first introduction of the catheter by either yourself or your patient, direct him to keep quiet the rest of the day, to drink freely of either plain water, or of the non-aperient mineral waters; and at the same time warn him that he may expect a little irritation of the bladder for twenty-four hours or so. Sometimes the irritation is very decided and of longer duration. Several days or even a week should be allowed to pass before the instrument is again introduced. After this, the intervals can be decreased until, depending upon the amount of residual urine, the catheter is passed without irritation once twice, or thrice daily. In some forms of obstruction of long duration, urination can only be accomplished by aid of the catheter, and hence, unless the atony present is sufficiently great to allow of distention without pain, the use of the instrument will be even more frequently required than this.

If you have drawn off from four to five ounces of urine at the first sitting and find that more still remains in the bladder, do not attempt to remove it all at once. Empty it gradually, more and more each time, taking a week or more even to do it. Past experience has convinced surgeons of the necessity of this care. If the residual urine be all removed at once, the bladder is liable to react, and cystitis to intervene. As to the cause of this inflammatory condition. It may be due to the changes in the circulation that take place under such conditions, or, again, it may be a result of the mere mechanical irritation set up by the introduction of the catheter, no matter how carefully it be handled.

M. Pasteur has lately maintained that the inflammation with the production of ammoniacal changes in the urine is due to the introduction of bacteria by the catheter: he even ascribes the transformation of urea into carbonate of ammonia to a special ferment belonging to a torula described by Van Tieghem. Hence the necessity of the careful use of disinfectants, prior to the insertion of the catheter.

When cystitis does occur, treatment of the proper



ment recommended by Mercier may be used with benefit. The eye of this metallic catheter (Fig. 5) is in the concavity of the instrument, and through this eye, when the end of the catheter is engaged in the false passage, is pushed a small, flexible catheter, which, as it emerges at a slightly different angle, is likely to reach the true canal, and so pass on into the bladder. However when this complication exists, I, for my part, am always inclined to let the injured urethra alone, and relieve the distended bladder by aspiration, or if the case is not urgent, to wait a few days for the injured parts to heal.

One more metallic instrument I will show you, and that is the vertebrated catheter, devised by Dr. Squire, of Elmira, N. Y. This invention consists of a number of hollow links, or sections, (Fig. 6) strung on a wire, which, by a screw at the handle, may be

kind must be employed. The patient must be kept quiet in bed with his hips raised and an anodyne, preferably in the form of a suppository containing two grains of the watery extract of opium with half a grain of belladonna, be administered. This can be repeated every four hours, if needed. To remove the acidity of the urine citrate of potassa may be given in half drachm doses four or five times a day, or you may administer the old combination of the carbonate of potassa and tincture of hyoscyamus in mucilage. A hot hip bath or hot fomentations to the hypogastrium will prove very soothing. The bowels may be opened by warm water enemata. The catheter should, of course, be laid aside until the attack is over. And before allowing your patient to use it again examine his stock of instruments carefully to make sure that the attack was not caused directly by a roughened, cracked, blistered, fissured, ragged, or sharp-eyed catheter.

In conclusion let me ask you to bear in mind that the older the patient is and consequently the longer the hypertrophy has been damming up the urine, the greater is the chance that changes have been made in the kidneys, which we by our tests unfortunately cannot recognize and that, therefore, the introduction of an instrument is in such a person more likely to be followed by dangerous and even fatal results than in a younger patient. With each year's experience I grow more and more cautious, and even timorous in this respect, and I feel more and more bound, as I trust you will do also, to take every possible precaution, and to use all possible gentleness in the treatment of such cases as these.

A CLINICAL LECTURE ON RACHITIS, AND ON FACIAL PARALYSIS.

Delivered at the Hospital of the University of Pennsylvania, Philadelphia.

HORATIO C. WOOD, JR., M.D.,

Professor of Therapeutics and Clinical Professor of Nervous Diseases in the University of Pennsylvania.

Reported for THE HOSPITAL GAZETTE.

CASE I.—This mother brings her child to the clinic, telling us that it is now two years of age, and that ever since it has been five months old there has been something the matter with its legs, exactly what she does not know. This is all the help we have in reaching our diagnosis. As the child sits there, do you see anything peculiar about it? There is a well marked eruption on the skin, but I do not think we have anything to do with that. Notice what a rachitic head the child has—how irregular is its shape, and how slow the fontanelles have been to fill in. Indeed, the sites are still soft. The condition of the legs, to which I called your attention, is one of palsy, without a doubt.

We have here, then, a child with palsy of the legs, accompanied by all the evidences of rachitis. The case is not one of infantile paralysis. Infantile paralysis may occur in the course of rachitis, but it is rare. We often, however, meet with cases of rachitis, accompanied by paralysis of upper or lower limbs, or of both upper and lower limbs. In all

cases of typical infantile paralysis we find particular groups of muscles affected. The peculiar nerve trouble in rachitis is a partial loss of power, affecting various groups. These groups may be and generally are widely scattered. The almost three-cornered physiognomy of this child is pathognomonic of rachitic paralysis. We do not know the nature of the lesion in this paralysis—there is probably no distinct lesion, but simply a want of development of the nervous system. There is no atrophy of the nerve cells, but only a lack of growth on their part.

What are the evidences of rachitis? A beaded condition of the limbs, enlarged joints, swollen glands in the neck, and sometimes softening of the bones in different parts of the head.

CASE II.—This woman has had four children. They are all healthy, except this one, which she brings to us to-day. This child suffered very greatly during its first year from diarrhoea.

There is not enough stress laid now-a-days upon diarrhoea as a productive cause of rachitis in infancy. For my own part I am very well satisfied that the bottle-fed child who suffers from irregular diarrhoea, with green stools very frequently, is developing an insidious type of rachitis. This insidious condition is attested by the fact that the child's skin is either covered with a peculiar eruption, or else unusually soft and pallid.

If you see a child plump, but with a peculiar pallor, with soft flesh and with a generally depraved condition of system, you may make up your mind that the diathesis is not nervous, but rachitic.

What are we to do for these children? The treatment should be both hygienic and medicinal. Let us take up first, then, the consideration of the hygienic treatment. Give the child as much fresh air and sunlight as possible. The absence of light has a great deal to do with rachitic diathesis. (The rachitic diathesis may be developed in hand-fed babies with diarrhoea under the best conditions).

Babies and young children with this diathesis, should always spend the summer out of the city. If possible they ought to spend the three hot months at the sea-shore. Such children should always in cool weather be well clothed in light flannel. They should never be overclothed. In hot weather the nearer they are brought to the condition of birth the better. If the baby is at the sea-shore in this weather it should be kept on the beach and in the shade. See at any rate that it is out of doors all the day long.

Care must be had too, with regard to its food, and there are no special directions here, except that all food should be avoided which is of difficult digestion, and all liquids except milk and water. Only a moderate amount of flesh should be given. A flesh diet is not advisable for a child with a tendency to rachitis—is not nearly so nutritious as a mixed diet of meat, vegetables and grains. Pure flesh is highly stimulating and being so should not be employed except under special circumstances. The child should have plenty of fresh milk, and, if there is no tendency to diarrhoea, oatmeal may be given, as an abundance of phosphorus is useful in rachitis. Bread, too, is very useful as a food, but it should never be given hot, or warm. The child should never be allowed any pastry, hot rolls, or cakes but good,

wheat bread toasted or broken up in milk. This pap may be sweetened if desired.

In using milk the distinction should be drawn between cream and milk. Cream is considered very nutritious by some—more so than milk; this is not so. Cream contains less caseine and nitrogenous matter and more fat than milk. Cream should be used in certain cases as a fattener, the same as cod-liver oil. Poor milk does not contain enough fat and should therefore be eschewed.

We come now to a consideration of the medicinal treatment, and here iron is very good. Of course, if there is a tendency to diarrhœa you must treat for diarrhœa. Give the baby some phosphate of soda in milk. This substance has a good effect upon the digestion, possibly upon the general secretions of the body. Iron should be given carefully and in small doses. Cod-liver oil, too, should be administered, the best shape for administration being in an emulsion with phosphorus. The lacto-phosphate of lime, with cod-liver oil, is an excellent remedy. This contains fifty parts of cod-liver oil, with a small amount of the phosphate of lime in lactic acid.

Under this treatment the child ought to improve rapidly, but both treatments—hygienic and medicinal—are necessary. If the rachitis is improved the probability is that the nervous trouble will disappear without any further medication.

I am very glad to have shown you these cases, because they are typical of very many that you will see before you have been many years in practice.

FACIAL PARALYSIS.

This little girl is thirteen years of age. She has always been healthy up to the present time, except that she has suffered occasionally from frontal headache. She has not been going to school of late, as studying has always increased these headaches, but otherwise her health has always been good until the present trouble began, which was some two weeks ago. Since then she has had no headache. When she had headache she was constantly vomiting. This vomiting seemed to be brought on by the headache.

Questioning elicits from her mother the fact that the child has never had any convulsive tremblings of her limbs, but that her memory is not quite as good now as it used to be.

Examination of the child's face and head reveals the fact that she is suffering from right-sided facial paralysis. There is no distortion of the features of the face, but we notice the fact that the skin is smoother on the left side and that there is more tendency to wrinkles on the right. I find too that, when I tell the child to shut her eyes, she can not shut the right eye completely.

This is *peripheral* facial paralysis on the face of it, because it is so complete and so general. The facial nerve which supplies the whole side of the face arises from various roots. This being so it will at once be clear to you that a central lesion would affect only one of its branches. A centric lesion is very improbable, chiefly because it is this very, universal, facial palsy which is produced by a peripheral lesion. You will notice too that the muscles of expression and not those of mastication are affected here.

I cannot decide to-day whether or not the gustatory nerve is affected, and whether the lesion is in front, or behind the spot where the gustatory nerve is given off. If the gustatory nerve were affected the sensation of taste would be impaired on the same side. The sense of taste may, of course, be disordered on both sides if both gustatory nerves are affected.

In the case of facial paralysis which I brought before you and lectured upon several weeks ago the lesion was evidently further back, this being, of course, a fair deduction from the fact that we found the auditory nerve to be affected.

The prevalence of headache and sick stomach in this case may be significant, or they may mean nothing at all. They may be simply the results of a disordered digestion and no evidence whatsoever of a lesion of the brain.

This headache and sick stomach may possibly have come on gradually and not been noted, but the strong probability is that they came on suddenly.

The age of the patient and the sudden onset of the disease would both seem to indicate that the trouble is due to pressure on the nerve by the pericranium or by the nerve sheath. The lesion may possibly be a syphilitic periostitis, although careful inquiry has failed to unearth any symptoms of hereditary syphilis. In hereditary venereal disease, it is very rare for a nerve trouble to be the only evidence of the constitutional taint.

To relieve the paralysis and headache, if it return, I shall have blisters applied to the back of the ears and nape of the neck. These blisters must be repeated frequently. The muscles too shall be galvanized with the current to which they respond most actively.

I need scarcely say, that the prognosis, if treatment is actively and faithfully carried out, is very favorable.

ORIGINAL ARTICLES.

REMARKS ON "PAIN IN THE SIDE."

EDWARD C. JANESWAY, M.D.

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Pain in the side is a common enough expression on the part of the patient to a physician, and in the absence of any febrile manifestation, the patient is probably not infrequently dismissed as suffering from neuralgia, myalgia, disordered stomach or liver. What I purpose in this article is to draw attention to deeper causes which may be of light or grave import. We should never rest satisfied with the statement that the patient has neuralgia or myalgia, but should endeavor to ascertain the hidden source. Hence it is necessary to examine carefully the site and limitations of the pain, as well as the conditions which bring it into play. I believe that it is a wise plan to cause every male patient so complaining to strip to the waist, in order that a more critical examination may be made, and to do the same for the other sex with the exception of a light

dressing sack or a chemise. We are thus prepared for a careful exploration of the lungs if that should be necessary. Next let the patient define the site of the pain, and if it is brought about by any special motion, let this be illustrated as far as practicable. We should study the position which the individual is in the habit of assuming in any occupation at which he may be engaged. If we find that a patient has the three tender points which are characteristic of intercostal neuralgia, we must avoid stepping there. The questions to be decided are: Is this due to some injurious influence affecting the body, as the malarial poison, lead, insufficient nutrition, brought about by dyspepsia, too little food; or excessive discharges, as prolonged lactation, abuse of sexual function, diabetes, etc.; or by some alteration of fluids by disease, as in gout, Bright's disease. Or on the other hand, is it due to some local cause, as an aneurism, Pott's disease, gummy growth or some form of tumor compressing the nerves within or without the spinal canal. It may seem to some of the readers that I have unnecessarily extended the list of conditions to be thought of when examining a patient, but I have in reality fallen short, for I have left out of account affections of the spinal cord itself, which usually produce double sided or girdle pain. So also it may be claimed do aneurism and Pott's disease. I have, however, within the last month seen three cases which illustrate the necessity for this care with reference to these diseases. The first had been treated for six months for intercostal and cervical brachial neuralgia, which an examination showed to be due to an aneurism of the transverse arch pressing upwards behind (?) the innominate artery.

The second had Pott's disease but had been treated for four months for intercostal neuralgia, and disordered liver; the pain being in the lower intercostal nerves and particularly on the right side. An examination of the back revealed a marked angular projection in the lower dorsal spine. These two of recent date will perhaps suffice, but I could strengthen the position by reference to a number of cases of aneurism and some of Pott's disease which had been overlooked, the pain being considered as indicative of neuralgia only. But to show the necessity for a careful examination still more strongly, it would simply be necessary to refer to histories of patients with leucocythæmia of splenic type. Pain in the left side has been in several cases that have come under my observation, the first symptom of the disease and as far as the patients' words can be relied on, they had been under treatment for neuralgia or some other disease which might be productive of pain in the left side. A corollary from this would be that with pain in the left side in the region of the spleen, a microscopic examination of the blood might give an early revelation of a disease which is usually recognized at a date too late for any material benefit to the patient. For those who are not in the habit of making this examination I would state, that all that it is necessary to do is to prick the finger, previously pressed below, with a sharp needle or pin, receive the drop of blood on the cover, and transfer this immediately to the slide, and examine with the microscope for excess of white globules. But let us suppose that we have

excluded anything like aneurism, Pott's disease or leucocythæmia. We will still have to consider the possibility of a sub-acute pleurisy. I recall at this moment the case of a physician recently consulting me about pain in the left side, in whom a careful examination failed to reveal the cause for a neuralgia, yet three days later the physical evidences of pleurisy were manifest. At this early stage then we may have pain only with characteristics of neuralgia or pleurodynia, and that without fever; for in the case I mention, the temperature carefully taken was $98\frac{1}{4}^{\circ}$ F. The obvious inference from such an example is that it is wise to re-examine in all doubtful cases. But pleurisy causes pain in the side not only in its earlier but also in its later stages where firm adhesions have formed and the nerves are implicated in the thickened pleura. So that we are obliged to think of this latter possibility also. Perhaps it is more common for people to imagine that they have phthisis because of a pain in the side than for phthisical patients to have pain in the side as the most prominent symptom, yet I can recall some cases in which I have discovered phthisis when the patient had come to me simply out of sorts and troubled with a pain in the side. Such a case of quite remarkable character I saw quite recently in a gentleman who consulted me about a pain in his side which he supposed was of little moment, and neuralgic. The whole right lung was useless to the patient, the pleura thickened and the lung indurated. I could scarcely convince the gentleman that there was anything special the matter with his chest. Such cough as he had he imagined due to a nasopharyngeal catarrh. This is of course a prominent illustration, but minor grades are by no means infrequent. So also with heart disease, many more people imagine that they have it on account of some pain in the left side than are found to be victims of the malady, having been examined by a physician in consequence of such pain. Yet the examination of the heart is so easily performed that it is wise to include it in our search. We should also question the patient with reference to the urine if we do not make an examination of it. Judging from the number of times which I have found a spleen adherent to the diaphragm and its capsule thickened, I believe that this is at times a cause of obscure pains in the left side. I have thus far examined in vain cases which I thought were possibly of this nature for a perisplenic friction sound. The only conditions under which I have heard friction sound over the spleen have been when the organ has been considerably enlarged and I am doubtful whether it is possible to hear a friction sound due to roughening of the capsule of a normal sized spleen. There is an occasion for pain on the right side of an obscure character, which I believe to be entirely overlooked. I have seen a number of cases at the post mortem table in which I felt that the strong probability was that they had experienced obscure pains in the region of the lower border of the liver in the neighborhood of the gall bladder. In these cases I have noticed adhesions of the gall bladder by peritoneal folds to the colon or duodenum, usually without any evidence that such folds were of inflammatory origin, but rather developmental. Last week such a one came under

until to-day, when he was discharged.

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MILK A VEHICLE OF DISEASE-GERMS.

In England marked attention is at present being directed to this subject. At a recent meeting of one of the London Societies, Mr. Gay, after noting the universality of its use as a food and its comparatively greater consumption by civilized than by savage nations, proceeded to state his objections thereto. He said that in order to justify this common usage, Science had kindly consented to adduce reasons for its fitness and special excellence, as follows:—First, that it is analagous in chemical composition and structure to the blood, and Second, that it can in no way contaminate the circulating fluid with excrementitious or poisonous material. These statements Mr. Gay proceeded to demolish, showing that the points of difference between milk and blood were more numerous than the points of resemblance. He described blood as a fluid, moving organ, upon which the other organs and tissues of the body depended directly for nutriment, finding in it their elements in a condition exactly suited for appropriation and use. He maintained that milk, on the contrary was a secretion derived from the blood, not strongly constituted, and not

containing tissue elements in a condition ready for secondary assimilation. He further stated that the moment it was secreted and met with the air, that its usefulness was ended, that it became really an excretion, that retrograde changes then began, and that it soon produced substances, such as lactic and butyric acids, that were poisonous to the human system, and probably took an active part in producing disease; and that it was soon filled with myriad vibriones and bacteria, one form of which was peculiar to itself.

The extensive use of such a food *after the period of lactation* he believed to be extremely hazardous and in the absence of exact knowledge on many points, might with reason be assumed to play an important role in the causation of that class of diseases occurring most frequently at that period of life when milk forms the principal article of diet. He further strengthened his objections by showing how easily pus, blood, and other organic material from foul sores on the udder of the cow could be carried into every family, and, thoroughly disguised by the opacity of the milk, be taken into the stomach.

We think that while Mr. Gay is justified in directing attention to the part milk may play in carrying and possibly producing disease, that he carries the matter to extremes, setting up hypotheses for the mere pleasure of knocking them down. His arguments are not strong; certainly not conclusive.

The effect of such a paper on a body of thinking men would be to direct their attention strongly to the necessity for careful and intelligent inspection of the condition and surroundings of the animals secreting this fluid, the securing of *fresh* milk, and in as far as is possible determining that those who handle the fluid are free from any contagious or infectious disease. The "swill milk" agitation in this country did much at one time to further this end, but all interest in the matter seems to have died out.

For Mr. Gay, however, to inaugurate a crusade against milk because it is not "living" at the time it is used, because it is only a secretion, and because it undergoes an acid fermentation, is not marked by that sense compatible with known facts. We do not know upon what grounds Mr. Gay finds that a secretion becomes an excretion when once secreted. We do not know that the *bacterium lactis* is ever present in sufficient quantity to do harm, if it does so at all, without making itself apparent. Furthermore, the very presence of butyric and lactic acids makes the milk unpleasant to the taste and it is consequently rejected. Is there any nitrogenous food (meat, blood, etc.,) that does not decompose?

AMERICAN PUBLIC HEALTH ASSOCIATION.

The subject of popular thought to-day is sanitation. People have just entered upon an appreciation of the merits of the questions concerning health-preservation, and find themselves peculiarly and profoundly interested in studying their novel, important and intricate phases. To the mass, the right to demand that regard shall be had by each individual in his business, social and property relations for the health of others, is the very latest meteoric discovery. It flatters their pride, quite as much as it upset their old notions of reverence for wealthy and imperious neighbors. The lordly owner of the green scum frog pond, the aristocratic stock-holder of the bone and offal boiling establishment, and the thrifty manufacturer of fertilizers, have had a mighty fall in the public esteem, and the claim of their importance, that enabled them to sicken and to slaughter, has been broken. Progressive justice has deemed that they are nuisances, and human life in the neighbourhood of their possessions is made more secure, is respected. Private interests, however strong in money and influence, must succumb to the penniless even, when life or health is endangered.

The people begin to know that they have the right to defend themselves from the attacks of others, and that their duty is to be careful of self.

The *American Public Health Association* is entitled to the credit for the public awakening, which has instilled such ennobling principles into the minds of the masses. We willingly concede the claim, and emphasize it by announcing promptly that the association meets at Nashville, Tenn., November 10th, to arrange for advancing the great cause of public health still further. The commencement of their work was an uninviting, unpromising task, but it has produced an abundant harvest of good. The situation to-day is promising, and with the national recognition and popular favor extended to the cause for the first time, we confidently predict that the coming session of the Association at Nashville will be the *golden opportunity* for medical, legal, political, commercial and private sanitarians. The National Board of Health, the present yellow fever scourge, the limit of public health demands, and other important topics are to be considered and determined at the meeting.

We have had reliable assurances from distinguished sanitarians of Nashville that the people of that city will exert themselves to their utmost to make the meeting memorable, because of the greatness of its doings.

PROFESSIONAL ETIQUETTE.

Professional etiquette is "the great white elephant" of medicine, and to many who devoutly cling to their own notions of its requirements, who magnify its importance, and nurse it in the ample and elegant leisure of their professional careers, it proves as useful and as valuable as did the great white elephant drawn by the small horse in the lottery. They have no use for it, but they own it; they cannot control it, but they dare not allow it to pass from them; they vociferate frequently and voluminously about it, because it is theirs. They combine Micawberism, Toodleism and Faustalism in their conception of its requirements; therefore do they appear to the world quite frequently in most bed-crouching situations, all of their making. The daily press enjoys the occasions when these learned men trot out their white elephants, and with a little fact as foundation, they serve an elegant dish of scandal to their readers, much to the harm of the medical profession, at every possible opportunity.

The past week furnished to them the latest opportunity. Dr. V. was called to see a sick woman. He diagnosed and prescribed for pulmonary troubles. For reasons, Dr. V. was called again after a short interval, but did not respond. For reasons, Dr. H. was summoned to the case, and responded. Thereupon Dr. V.'s white elephant made its appearance; and, as a matter of course, Dr. H.'s white elephant made its appearance,—much noise followed. The woman died, and the doctors' quarrel suggested a post mortem by the coroner, one or both doctors requesting. This revealed that neither doctor had fully and correctly diagnosed the case. A title of the thought bestowed by either of the doctors upon their notions of professional etiquette, given to the case itself, would most likely have been productive of better results, and the world knows it, therefore the profession is dishonored, that these gentlemen might have their little etiquette performance. If the entire disgrace would fall upon those deserving it, and extinguish them, we would be silent in our happiness.

It certainly is time every one in the profession should know that professional etiquette is only genuine courtesy and common sense combined; the more genuine the courtesy, and the more common the sense, the more perfect the etiquette.

WHAT DOES IT MEAN?

We have received a circular of "The Albany City Homoeopathic Hospital and Dispensary" which contains the following names as members of the staff: Dr. John Swinburne, Surgeon; Dr. Lewis Bule,

Assistant Surgeon; and Dr. H. Bendell. Eye and Ear Diseases. Dr. Swinburne is Prof. of Fractures and Dislocations and Clinical Surgery in the Albany Medical College, and was formerly Health Officer of the Port of New York; Dr. Balch is Prof. of Anatomy in the Albany Medical College; and Dr. Bendell graduated from the same institution in 1862.

We have also before us a copy of the *Albany Press and Knickerbocker*, for July 2d, 1879, over a column of which is devoted to the record of marvellous cures under the following heading: "Conservative Surgery—Dr. Swinburne's Reforms—Remarkable Cases of Limbs Saved—His Method of Treating Broken Limbs—No Cutting Off to Replace with Wooden Ones."

We should like to know, from the Albany Medical College, as well as from the gentlemen above mentioned, —What does this mean?

WRONGING A WRONG.

A druggist in Brooklyn, named Bentley, distributed generally throughout that city, a circular of very little literary pretension, informing readers that cheap doctoring and medicine could be had at a neighboring pharmacy, where Prof. E. B. Jones could be found at stated hours. Dr. Jones's name was appended to the circular, and it would be inferred by strangers that he was responsible for it.

Dr. Jones carried the matter before the Courts, and an injunction was issued restraining Bentley from distributing the circulars. Whatever may have been the provocation, if any existed, Bentley's performance was unjustifiable; the commission of one wrong will not correct another.

ABOUT BOOKS.

Manual of the Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D., Surgeon to Bellevue and St. Vincent's Hospitals, New York. Houghton, Osgood & Co., 21 Astor Place, New York.

The author has divided his work into eleven sections; viz: I.—The Principles. II.—The Osseous System. III.—The Muscular System. IV.—The Circulatory System. V.—The Nervous System. VI.—The Tegumentary System. VII.—The Digestive Organs. VIII.—The Respiratory Organs. IX.—The Urinary Organs. X.—The Generative Organs (Male and Female). XI.—The Extremities.

In the initial section and chapter, Dr. Smith discusses in clear and concise language the obligation which every practitioner assumes when he places himself in a position to be called on to perform the duties of a surgeon in the emergencies of life.

"In its legal construction this obligation requires that every practitioner of operative surgery shall possess that degree of knowledge, skill and experience which is ordinarily possessed by the professors of the same art or science; and which is regarded by those conversant with that employment as necessary and sufficient to qualify him to engage in its practice." * * * * * It follows from those decisions, that the surgeon who fully complies with the obligation

must have adequate knowledge of the medical sciences, anatomy, physiology, pathology and of the practical branches, medicine, surgery, obstetrics, and therapeutics. He must be familiar with the current opinions of the leading authorities, for as surgery is a progressive science, his patient is entitled to the benefits of new discoveries. Without such knowledge no case can be treated understandingly and safely."

And, notwithstanding this high estimate of the obligation and qualification of the practitioner, which every surgeon will endorse, Dr. Smith lends his name and well-earned reputation to a system of medical education, wholly inconsistent with the moral his text inculcates.

Nor is the author's conclusion (p. 3) that, "conformity to established rules of practice, has from the earliest periods been rigidly exacted," a proper one. The inference from this text is routine, and no science can be progressive which adheres blindly to "established rules." The book in question teaches differently itself, for it is creditably progressive. Had it not been so the author would not advise ligation of the external carotid for hemorrhage following a lesion of the scalp and face, when the "established rule" has been to tie the common trunk for this accident. In fact, no practice in surgery should be followed unless it will stand the test of intelligent and critical analysis.

The advice to consult the barometer (p. 13) is sound and progressive, and since Hewson's deductions are established the practice of operating by appointment in unfavorable weather, when the operation can be postponed, rather than disappoint a medical class, is unjustifiable.

It would be extremely difficult either in hospital or private practice to give 4,000 cubic feet of air (p. 16) to each bed, which would require a room of 20x20x10 ft. It is none the less desirable to have full and free ventilation, though none of our New York Hospitals are so spacious. The medical wards at Bellevue only average 1,539 cubic feet, the surgical wards, 1,415; at New York Hospital 1,500, and the Presbyterian 1,567 cubic feet per bed.

Esmarch's elastic bandage (p. 18) receives the high praise it justly deserves, nor is any too great emphasis placed upon the method of applying it from the periphery to the centre. It is the practice in Mr. Bryant's service at Guy's to *constrict* the limb above the point of operation without having previously applied the roller from below upwards, a recklessness which happily has not been introduced in America.

On (p. 21) it is objectionable that the ligation "may be applied to the main artery as to the common carotid in operations on the face and mouth." Surgeons of to-day have gone beyond the teaching of Valentine Mott, the great operator of his time, and few would endanger their patients' life by tying the common carotid for a lesion involving the distribution of the external. The author contradicts this by advising the ligation of the external on page 216.

Nothing could be added to the description of the method of giving the anæsthetic (p. 28), except to allow no conversation on the part of attendants, which will frequently excite the patient, and the essential caution *not to allow the patient to assume the upright posture*. It will be interesting, in this connection, to consult the very extensive and interesting experiments of M. de St. Germain. (*On La Force Musculaire*, No. 98, p. 774).

In the section on "Dressing," (p. 46), there might have been included the new adhesive elastic dressing of Vogel, which is described in full in *Centralblatt für Chirurgie*, March 1st, 1879, p. 129.

The chapter on "Bandaging" (p. 50), which, in a work on *Operative Surgery*, should be full and explicit, is sadly deficient, both in text and illustrations, and detracts no little from the value of the book.

On page 135, in describing the operation of resection of the upper end of the fibula no mention is made of the external popliteal nerve which winds from behind on the outer side of the fibula crossing this bone from one to two inches below its head. The incision given, would divide this nerve, producing paralysis of the *tibialis anticus*, the other extensors of the tarsus and toes, and the *peronei* muscles.

In the methods of reducing the dorsal backward dislocation of the hip joint (p. 152) the plan advocated by a distinguished surgeon, the late Prof. A. B. Crosby, might properly find a place, viz: standing astride the patient, catch the legs under the hams, flex them at a right angle to the thigh and the thigh at the same angle to the abdomen, and lift the body directly upward. If the dislocation is not reduced in a few moments a slight swaying motion from side to side is recommended,

of opening the joint by sawing transversely through the middle of the patella, and afterwards of stitching the two pieces together again, thus saving the attachments of this bone, and suspension of the excised limb, originated by Dr. Fluhier at Bellevue, introduced into the text.

In excision of the hip joint (p. 189) the author gives precedence to the incision advocated by Prof. Sayre which is by far the best, and the most valuable instruction for the direction of the incision, introduced into the text.

In excision of the hip joint (p. 189) the author gives precedence to the incision advocated by Prof. Sayre which is by far the best, and the most valuable instruction for the direction of the incision, introduced into the text.

muscle was inserted into the second and third phalanges, instead of only giving the insertion with the terminal phalanx, nor is the advice to "cut towards the bone" in the tenotomy over the metacarpal bones as advisable as to cut from the posterior carpal arch are less likely to be divided by cutting the tendon.

Moreover, no mention is made of the proximity of the ulnar nerve, in the operation for division of the tendon of the *flexor carpi ulnaris* (p. 206.) this nerve lying partially concealed by the tendon in question. Nor is the operation for division of the *pectinens* free from danger on account of the proximity of the internal saphenous and femoral veins which pass in front of it, and the obturator vessels and nerve beneath it.

To tie both ends of the bleeding internal carotid (p. 216) rather than ligate the primitive trunk, the old practice, is sound surgery, and when the author says, "when any one of the branches of the exterior carotid has been wounded, tie both ends at the part wounded; if this is impracticable and the hemorrhage demands it, the trunk of the external carotid should be ligated near the common trunk." He accepts the latest demonstrations of the surgical anatomy and operative surgery of this region with commendable alacrity. He fails to give, however, an important point a few lines further on, "the common trunk of the carotid artery should be tied near the bifurcation for a wound of either the external or internal carotid." No mention is made of the *thyroid* branch which should, under all circumstances, be sought for and if found coming off within the ligatures applied, it should be secured.

The author also mentions that the common trunk of the carotid artery should be tied near the bifurcation for a wound of either the external or internal carotid. No mention is made of the thyroid branch which should, under all circumstances, be sought for and if found coming off within the ligatures applied, it should be secured.

On the same pages in connection with "a wound known or suspected to be of the vertebral artery should be treated either by direct pressure or by ligature of the vessel in the wound," the method of differentiation between lesions of this vessel and of the carotids or their branches is of such importance that it should be given.

The author very properly advises ligature of the external carotid in lesions of the temporal (p. 221) but the ligature of the common carotid "when the orbit is the seat of the disease" is subject to some qualifications. It is true that in fifty-two operations in which the primitive carotid was tied, for intra-orbital aneurism (non-malignant) the death rate was only 11½ per cent., yet if the operation for removing the eye is determined upon it may not be necessary to tie the common trunk since the death rate following this procedure for all cases is 41 per cent. Pressure upon the primitive carotid of the affected side until the operation is completed, will control the hemorrhage, when the compress in the orbit will probably arrest the bleeding. Anyhow the danger of interfering with the circulation of the carotid is avoided.

Appropos of the operation for aneurism (p. 223) a perusal of a late article in *Centralblatt für Chirurgie*, Feb. 1, 1879, p. 67, by Es-march himself will prove interesting and valuable in which he concludes that direct, intermittent pressure is more promptly efficacious than his own elastic bandage.

It is difficult to find any fault with the book.

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of the procedure, an operation, not only condemned by the highest authorities, as "subject to grave objection, and liable to be attended by general pyemia and death,"* but in itself contrary to anatomy and common sense. Yet ligature of the vessel before us.

The operation of tapping the pericardium (p. 233) is objectionable, for if the directions given are followed there would be danger of wounding the left internal mammary artery or veins, which are not mentioned.

A safer method would be to slide the skin wall to the left, and introduce the trocar or aspirator needle in the left fifth intercostal space, making the point of the instrument hug the edge of the sternum closely. The vessels could never be wounded by this puncture, since they vary from ½ to ¾ of an inch distant from the edge of the sternum in their downward course.

Prof. Smith, with most other surgical writers, directs that as little as possible of the sheath of an artery be raised in exposing it for the ligature. According to Verneuil (*Gazette des Hôpitaux*, No. 132, p. 1049,) ulceration after extensive denudation of arteries, only occurs in patients suffering from impaired nutrition.

It is not justifiable to attempt the cure of aneurism of the terminal carotids or common trunk near the bifurcation by compression (p. 238). The danger of death from cerebral embolism is too great.

On page 242 the author, in giving the operation for ligature of the external carotid, makes no mention of the veins which cross this vessel in their way to the internal jugular. They should have been given. On the same page the lingual is given as the second branch of the external carotid, which is incorrect, it being the third.

Prof. Smith sustains his high reputation in condemning ligature of the first portion of the subclavian artery for aneurism. This operation has been done in nineteen cases, all fatal: twelve operations were for aneurism beyond the ligature; two for aneurism on the proximal side, and five for other causes.

In directing the application of the ligature to the three divisions of the right, and second and third divisions of the left subclavian, the author fails to advise the ligature of any branches in the immediate vicinity of the ligature, which is a serious omission; the presence of these collateral channels being important factors of death.

On page 262 the adductor brevis is given as the minor boundary of Scarpa's space. The outer border of the adductor longus is now considered as the inner boundary.

The medium cephalic vein is preferable, rather than the "cephalic" (p. 270), in venesection.

In the section upon operative surgery, in diseases of the nervous system, the author does not mention ligature of the common carotid, though this has been done forty times. Twenty operations for epilepsy, with one death; fourteen times for neuralgia of head or face, with one death; headache, two; hemiplegia, two; paralysis, two.

The operation of nerve-stretching which is limited to the "spinal nerves" (p. 293) as a final resort for the relief of spasms has lately been successfully applied to the cranial group.

The operation for section of the facial nerve given on page 297, is of questionable propriety. It is difficult to conceive of the circumstances rendering such a dangerous operation justifiable.

In future editions of his work, Prof. Smith should include in the article on skin transplantation (p. 336) the grafting *en masse* without a pedicle, since successful transplantation of a piece of integument so long by three cm, with has been made by the method of ectopium (*Centralblatt für Chirurgie*, Dec. 1, 1878, p. 880). And in the operation for removal of the thyroid gland, the thyroid artery and the thoracic artery should be tied to the section on this subject, p. 366.

So distinguished a surgeon as Dr. Smith should take positive grounds in the matter of gunshot and other perforating wounds of the intestine.

He gives precedence to the quotation from Gross, Neudor-

* *Brit. Med. Jour.*, 1878, p. 1049.

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* *Brit. Med. Jour.*, 1878, p. 1049.

for and Harrison, that "the rule of practice is to date the wound," and a secondary place to the growing conviction that the time has come when gunshot and other wounds of the abdomen and perforations of the intestines should be treated by opening the peritoneal cavity and washing out or drawing off the septic fluids that would otherwise poison the blood," etc., etc. This should be emphasized as the practice. If there is a perforation of the intestine and escape of fecal matter, the operation should most positively be made immediately.

On page 401 Amussat's operation for colotomy is alone given. The operation of Littre, especially since the introduction of "Littre's Method" is worthy of consideration. Van Eecke gives a *stat.* for *Archiv. Clin.*, Bd. XXIII, Hft. 1, p. 4 gives a statistic of 105 operations after Amussat with sixty-three deaths, (59 per cent.) and eighty-four Littre's with thirty-one deaths, (46 per cent.). This writer concludes that Littre's operation is preferable, for the reasons that Amussat's incision is likely to be followed by erysipelas and abscess, is more difficult to perform, and that the artificial anus is not so comfortable as after the operation of Littre.

In dividing the stricture in both forms of inguinal hernia it is better to cut upward and inward toward the umbilicus, rather than "directly upward," or "parallel with the linea alba," as advised (pp. 447, 449.) since this is the direction of the gastric artery. In the operation for the division of the stricture in femoral hernia in regard to the obturator artery (Prof. Smith says, "as it is impossible to ascertain the presence of this vessel in that position (*i. e.*, derived from the epigastric) beforehand and as it is seldom damaged by the cautious use of the knife, its existence may be ignored in practice." The obturator is derived from the epigastric in one of two or two and a half cases in females and in one of four or six cases in males and it should be insisted on that although the conditions in which this artery is found to the inner side of a femoral hernia rarely exist, the operation should be made with every regard to this abnormal arrangement.

Mr. Barker recently reported to the Clinical Society of London, a case in which this abnormal relation of the obturator existed and was divided in operating for the relief of femoral hernia, with fatal result. He had collated 12 similar cases.⁵ Such positive facts as these deserve a consideration in a work on operative surgery.

In internal hemorrhage the author has omitted to advise ligation of the extremities. In epistaxis, hemorrhage from the lungs, &c., &c., his treatment is conservative and advisable. On page 476, the thermo-cautery deserves a place as an instrument useful in the operation of laryngotomy, or tracheotomy, since its cautery action prevents hemorrhage into the trachea. Any instrument recommended by Verneuil, † Berger, Polakion, Auger, and Krishober deserves a recognition.

Surgeons at large will not assent to the author's conclusion that incision of the cedematous folds in edema glottidis is "a very simple operation." Death has resulted from this procedure ‡ and if the necessity exists and laryngo-tracheotomy be not deemed more expedient, the sharpened finger nail can be used with more precision and safety than any knife, however, well guarded or guided.

Page 493, in paracentesis thoracis, no mention is made of free incision, and open drainage through the intercostal spaces, although this is successfully and extensively the practice to-day, even involving in some cases the removal of a section of rib to insure perfect drainage.§ In the article on internal urethrotomy the instrument (†) introduced by Dr. E. A. Barker deserves a recognition as being one of the best and cheapest urethrotomes yet invented—under the heading of *phimositis* p. 556, the precaution not to excise too much of the prepuce would have been in place, since a plastic operation for the relief of "contracted prepuce after the excision," follows a few lines below—Hut's operation¶ for phimositis by means of the elastic ligature would have been an interesting addition to the text, while the clamp with the blade perforated by needle holes for the passage of the sutures before it is removed and before retraction of the mucous membrane has occurred is preferable to the one described. In the section

devoted to vesico-vaginal fistula the well known operation of our distinguished countryman, Dr. Bozeman, is conspicuously by its absence, which many surgeons will consider a mistake.

The subjects of amputations and excisions of the joints are most satisfactorily treated and the text of the article on ligation of the arteries is equally acceptable although the illustrations are of very little assistance to the reader and student. The original illustrations as a whole are unsatisfactory, some of them indeed conveying no idea of their meaning. The instruments are mostly pictured from Tieman's catalogue, and are good.

The book itself is full of useful matter, but this is neither a work on general surgery nor a work on operative surgery. It does not contain enough details for the latter, and too few of material not strictly relevant to surgical operations to class it with books of the latter order.

We think that a discussion of the processes of "repair," cicatrization, the pathology of tumors, synovitis, concussion of the brain or cord, lupus, the obligation" &c., &c., belongs properly to works on general surgery and it occurs to us that the space in this book might have been filled with larger, better, and more complete illustrations and description of the appliances and procedure of operative surgery.

SELECTIONS FROM JOURNALS.

SELECTIONS FROM THE GERMAN.

CONTRIBUTION TO THE ETIOLOGY OF TUBERCULOSIS.

A CONTRIBUTION TO THE ETIOLOGY OF TUBERCULOSIS.—INDEX.
Beitrag zur Ätiologie d. Tuberkulose, Vol. 49.

A young man contracted a disease of the liver in the year of 1870-1, which became occasionally severe. At the same time the patient suffered from epistaxis which took place once or twice daily, weakened the patient and withstood all kinds of treatment. One day, while sneezing forcibly, a small worm, similar to a ground or sandworm, was expelled from the nose, which, upon examination, proved to be a *pentastoma hendelii*. After this the patient had no more bleeding from the nose, and became convalescent, with the exception of a mild icterus. As this parasite inhabits the liver as well as the frontal bone and the nasal passages, it was presumed that this disease of the liver was due to the same cause as the epistaxis.—*Dr. Mosenigk* (Bonn).—*Centralblatt für Chirurgie*, Apr. 5, 1879, p. 221.

EPITRACHEAL.—CASE IN WHICH A PIECE OF OAT STRAW PASSED FROM THE MOUTH, THROUGH THE EUSTACHIAN TUBE, MIDDLE EAR AND FINALLY THROUGH THE DRUM INTO THE INTERNAL EAR.

The patient, a lady, after biting the top of a small oat stalk in two, perceived that she was unable to spit out the portion which she held in her mouth. As it did not give a great deal of annoyance it was left alone, and gradually it worked its way into the Eustachian tube, causing great pain during mastication, but none when swallowing. Nine weeks after the little accident, the husk was removed from the external ear. During all this time the patient recognized properly every phase of her suffering, and could very correctly point out the direction in which the blade was traveling.—*Dr. Mosenigk*.—*Beitrag zur Ätiologie d. Tuberkulose*, Vol. 49. *Centralblatt für Chirurgie*, Apr. 5, 1879, p. 237.

RUPTURE OF THE SPLEEN, DUE TO MUSCULAR ACTION.

On the Island of St. Mauritius, which is very malarious, diseases and ruptures of the spleen, the latter due to muscular action, are quite frequent. The two following came under the writer's observation. A squaw of 30 years while carrying a vessel on her head, in trying to balance the same, slipped and fell and died shortly after. The *post mortem* revealed a rupture of the spleen, radiating from the hilus. There were three distinct superficial rents; the spleen itself was very much enlarged, soft and enclosed in a thin capsule. In the surrounding tissues not even ecchymosis could be found. A native woman aged 36 years, in dodging from a blow, fell to the floor and died shortly after. *Post mortem* revealed a longitudinal

* *Beitrag zur Ätiologie d. Tuberkulose*, May 1879, Vol. 49, p. 100.

† *Centralblatt für Chirurgie*, Nov. 14, 1879, p. 10.

‡ *Beitrag zur Ätiologie d. Tuberkulose*, p. 100.

§ *Centralblatt für Chirurgie*, Jan. 11, 1879, p. 10.

¶ *Beitrag zur Ätiologie d. Tuberkulose*, p. 100.

‡ *Centralblatt für Chirurgie*, Jan. 11, 1879, p. 10.

capture of the spleen from the hilus to the lower border on the inner side; the spleen was very soft and weighed 1½ lbs., and is enclosed in a fine capsule, no ecchymosis in the surrounding parts.—*Contribut. par Chir. et. April 15, 1876, p. 254.*

REMARKS.—A PIECE OF A METALLIC CATHETER IN THE UMBILICAL PASSAGE TO THE RECTUM.

The patient, an old man of 78, who, after the operation of lithotripsy several years ago, was in the habit of using a metallic catheter, one day broke off a piece of the same, which after first remaining a while in the urethra, was, during the following catheterization, pushed completely into the bladder.

The piece in question was 7 centimetres long and 5 millimetres in thickness and was pointing upwards in the bladder, with its point—the broken end—resting on the base of the bladder. In consequence of the age of the patient, all operative interference was abstained from, the inflammatory reaction was very mild and on the 5th day after the accident the piece of catheter passed with fecal matter from the rectum without having caused a vesico-rectal fistula. In the *Société de Chir. de Paris*, the expectant treatment was unanimously condemned as the age of the patient was no contraindication to the operation for stone, which especially per rectum would have been easy.—*Revue Méd. (Chir.) Centralblatt für Chir. et. April 12, 1876.*

C. MODERNE.—LOCATION OF THE LEFT COMMON CAROTID.

A young man of nineteen stabbed himself on the left side of the neck about twenty times, after which he fainted, and remained without perceptible pulse for some time, in which condition he was found, and life not being extinct, carried to the hospital for treatment. After the lapse of half an hour the ligation of the left common carotid was performed close to the clavicular origin of the sternocleidomastoid muscle. During the operation, which lasted fifteen minutes, the patient fainted again. No cerebral symptoms followed after the operation. On the third day purulent infiltration of the tissues in the neck, which was treated with flaxseed poultice; then stupor, restlessness, delirium, no paralysis, but death on the sixth day.

The post-mortem revealed a triangular wound in the left carotid below its bifurcation. *In the wound two parts of a fragment, of the size of a pigeon's egg, in the upper portion of the ascending paracervical convolution on the left side, and on the right side of the lobe of a fibrous behind the scapulo-paracervical in the lower convolution.*—*Contribut. par Chir. et. April 19, 1876, p. 279.*

SELECTIONS FROM THE FRENCH.

BY FREDERICK A. LYONS, M.D.

RESULTS IN THREE HUNDRED CASES OF GASTROTOMY PERFORMED BY M. PÉAN.

Dr. A. Brochin, in a long and interesting article on "The Operations Practiced on the Stomach," quotes from his former master, M. Péan, as follows:

"We will finish," says he, "by an examination of three hundred gastrotomies, which we have practiced up to January 1st, 1876, and which represents the complete results of our practice since our beginning in November, 1864, that is to say, during a little more than eleven years.

"101 ovarian cysts, having given 147 successes and 44 failures, an average success of 77.3 per 100. In this number are comprised seven dermoid cysts in the ovarian region, which gave seven successes, four double ovariectomies, two successes and two failures.

"38 cysts of the broad ligament, of which about one-third involved at the same time the mesentery: seventeen successful, thirteen failures, or 56.6 per 100.

"11 tumors of the mesentery, divided as follows, according to their nature: Five cystic, of which one extended into the cul-de-sac of the great omentum, two successes, three failures; one fibrous, whose extraction was followed by cure; one lipoma, and one fibro-fatty, which presented calcified plates, two failures; one of foetal appearance, and containing numerous cystic cavities, cure; two of a malignant nature (encephaloid and cysto-sarcoma), two failures.

"2 solid tumors occupying the cavity of the uterus, one complicated with double extra-uterine pregnancy, cure; one medullary sarcoma of the ovary, failure.

"24 abdominal abscesses, of which 14 required hysterotomy necessary to attain successes, eight failures, or 66.6 per 100.

"3 adipo-lipomatous phlegmas of the uterus, three successes, no failure.

"7 fibrous tumors of the uterus, of which six required the necessity of hysterotomy, four successes, three failures, or 58.0 per 100.

"8 tubercles of the uterus, causing the necessity of partial amputation of the organ: three cures.

"1 asperity of the uterus, which had undergone plastic degeneration.

"2 tubercles near one for cyst of the pleura, the first cured by simple hypertrophy. Two cures.

"2 tumors implanted in the broad ligament, one cured by fibrous, the second taken for an ovarian cyst. Two cures.

"1 cystic tumor of the broad ligament, cured.

"17 cancerous tumors, limited to a single excrecence, or to a contrary extending over the whole of the genital peritoneum. In some patients nearly the whole peritoneal surface appeared to have undergone the degeneration; two of these patients only, in whom the cancerous affection was found to be limited nearly to the ovary were cured temporarily. Two exploratory incisions were followed by rapid cures. The two patients succumbed later to the affections from which they suffered. One had at the same time an abundant ascites, and presented a generally adhesive entero-peritonitis, the second besides the ascites, showed an advanced cancerous degeneration of the ovary, and a tubercle of the uterus.—*Revue Méd. (Chir.) Centralblatt für Chir. et. April 19, 1876.*

PROCS OF THE LIVER AND PANCREAS IN THE RIGHT ABDOMEN.

In case of violent laceration of the pleura, which produces such an abundant hemorrhage that the woman is exsanguinated, and it becomes necessary at once to raise the temperature and stimulate the nervous centres, M. Chantreuil advises the injection of sulphuric ether (4 grammes for example) into the subcutaneous cellular tissue. A little later we may use one or more similar injections of cognac. Under their influence the faintings cease, the heat is reestablished and the patient is reanimated. In this way, if transfusion becomes indispensable we have at least gained time.—*Union Médicale, July 13, 1876.*

CORRESPONDENCE.

LETTER FROM PARIS.

(Continued from page 492.)

PARIS, Sept. 10th, 1876.

TO THE EDITOR OF THE HOSPITAL GAZETTE, New York.

DEAR SIR.—I propose to give you in the future, some items, which may be of interest to the readers of your excellent journal. An article in *Public Opinion* of August 23d, has the following translation from the *Allgemeine Medicin, Central Zeitung*, of

A CASE OF CURIOUS EFFECTS OF CARBOLIC ACID.

Dr. Klamann reports a case of bee sting, followed by acute symptoms of poisoning, which was relieved by a subcutaneous injection of carbolic acid. The patient, a robust, strongly-built young woman, was stung in the lower lip by a bee. Soon afterwards she vomited; her face became flushed; the right half of her face began to swell, and the swelling soon spread over the whole face. The woman fainted and was laid on her bed. When Dr. Klamann saw her soon afterwards he found her unconscious; the face was dark-red, and much swollen; the sclerotics were injected, the lips cyanotic, the lids oedematous, the fingers and toes pale and cold. The patient did not answer when spoken to; the pulse was 72, hardly perceptible; respirations 24. Nothing abnormal could be detected in the heart, but the impulse was weak. The extremities were immovable. Cold compresses were immediately applied to her head and ½ of a grain of carbolic acid in solution was injected under the skin, near the spot where she had been stung. At the same time sal volatile was held to the mouth. In about a quarter of an hour the swelling at

her eyes and eyelids began to abate visibly, consciousness returned gradually, and the mouth could be opened. The tongue was somewhat swollen, but the patient could swallow without much difficulty. In the course of three-quarters of an hour the patient had three attacks of convulsive trembling of the whole body, together with small twitches of the muscles of the face. During each of these attacks the patient was very restless; her face became flushed, and she threw her head about. After each attack her face became suddenly pale, the skin of her whole body grew cool, and the pulse could hardly be felt. Gradually, however, the symptoms of poisoning disappeared; the patient could open her mouth and swallow a few drops of spirits of sal volatile in water. She passed a good night, and the next day went about her work as usual. The lower lip remained slightly swollen during the next few days. A fortnight before the accident she had been stung by a bee in the left forearm; after which the whole limb became swollen, and urticaria broke out over the whole body. The arm was still swollen when she was stung in the lip, and the injection of carbolic acid appeared to exercise a favorable influence on the arm, which, on the next day, and recovered its natural size.

PROPHYLAXIS.

The new statute to amend the Sale of Food and Drugs Act, 1875, has just been issued in England, and has immediate operation. It is now enacted that in any prosecution it is no defence to allege that the purchaser having bought only for analysis, was not prejudiced. An officer of health, inspector, or constable may obtain a sample of milk at the place of delivery, to submit the same to an analyst, and a refusal to supply milk for analysis, subjects the offender to a penalty not exceeding £10. The principle of the act is extended to sales in the streets.

PROFESSIONAL INTERESTS IN FRANCE.

From the Gazette Hebdomadaire, April 18th, 1879. A decision has been made by the Court of Paris, that a doctor who is deceived in the nature of the substance employed as medicine, commits an imprudence which is not covered by the fact that the error originated with the apothecary in compounding the wrong substance. The consequence is, the doctor, as well as the pharmacien, is held culpable of homicide by imprudence, if the patient dies from the ingestion of the substance administered.

This interesting question was decided by the court, and we give below the principal considerations under which the decree was made.

The Court, considering that, on the 30th of May, 1878, B., a gardener of Avallon, died in that city from the effects of the treatment prescribed by Dr. L., that, from informations and from the debates, this death must be attributed to the toxic action of an infusion of nux vomica sold for the bark of the roots of the pomegranate tree by the apothecary R. to Dr. L., who had prescribed this infusion as a remedy for B., after having prepared it himself.

Considering that the fact of having sold for the roots of the pomegranate tree a substance which, according to the statement made by the expert, concealed nux vomica, constituted against R. a charge which pledges his responsibility so much the more grave, that it had for effect the leading of Dr. L. into error, and has thus been the first cause of the misfortune with which they are both justly reproached. That, on his part, Dr. L., claiming the immunities of the law of 1811, assumes from that time the responsibilities which spring from it, without being able to throw the burden of the error on the pharmacien, his vendor, whose fault cannot entirely release him from the consequences of his own imprudence. That this imprudence consisted in not ascertaining, amidst the nature of the medicine which had come into his possession, and which he himself prepared, as the principal aim of his prescription. Following these considerations, the court has the conviction that, although nux vomica, it is true, presents a great analogy to the roots of the pomegranate tree, yet, Dr. L., was quite able himself to establish the differences which exist between these two substances, and all the more so from the unaccustomed odor of the infusion which he had prepared. For these reasons, the court fines Dr. L. — 200 francs, and R., the apothecary, 200 francs, with 15 days imprisonment.

PHOSPHATES IN THE BLOOD.

Dr. L. Jolly, after careful researches upon the subject of the distribution of phosphates in the different elements of the

blood, has decided: 1st, that the alkaline phosphates predominate in the aqueous portion of the blood; and 2nd, that all the elements contain a variable quantity of phosphate of iron, which is accumulated especially in the globules.

OF THE EMPLOYMENT OF CRUDE PETROLEUM INTERNALLY, IN AFFECTIONS OF THE AIR PASSAGES.

Dr. René Blache advises the use of crude petroleum in these cases; he has been brought to this conclusion by difficult observations of which we give the resumé; A refiner of petroleum, distributed gratuitously to the people in his neighborhood affected with chest trouble, crude petroleum, and these troubles were ameliorated. At the same time we noticed that young men who were in advanced stages of pulmonary tuberculosis, found a notable amelioration after a few days labor in the refinery, even while doing hard work. Crude petroleum is easily tolerated by the stomach; during the first few days there is some nausea, and once in a while vomiting, but these accidents always disappear quietly at the end of a few days. Nevertheless, we think with Doctor Blache that it is better to mask the very disagreeable odor. He has made many experiments, particularly in affections of a catarrhal form with abundant secretions, in the service of Doctor Millard.

We give below a summary of the effects, viz: Diminution of the cough and expectoration in chronic bronchitis. Amelioration of the habitual dyspnoea of asthma although Dr. Blache has not been able to give the petroleum at the moment of an access. In acute bronchitis, petroleum has always brought about a cure which was more rapid than the disease itself. It seemed to have good results in pulmonary tuberculosis, producing diminution of secretion, but his searches in this direction, were too incomplete for useful reference. The dose was, for an adult, two or three teaspoonfuls each day, just before eating.

From 1842 to 1860 I lived in Florida and Georgia, and some facts in this connection which came under my personal observation, may not be unworthy of present consideration. My later studies have brought back to me very clearly the recollection of them.

During the "turpentine season" it was the universal custom to send all the sickly negroes to the turpentine plantations as they were called, or to use the local phraseology, the "consumptive niggers" always helped make tar, pitch, and turpentine. The processes of manufacture, are an important factor in its therapeutical relations.

The first step is to "box" the tree, that is to cut a wedge-shaped hole inclining inwards and downwards in the body of the tree near the ground, this "box" acting as a cup or reservoir for receiving the crude turpentine as it oozes out from and runs down the body of the tree. If a first year's tree this is called "virgin dip." Next the bark is cut in convergent lines from the two sides to the centre line of the body, with a long-handled hooked gauge for a distance of three to six feet directly over the box, these furrows acting as transfers for the turpentine. The next process was the "dipping" the crude turpentine out of the boxes, and carrying to the temporary stills placed at convenient distances, and emptying into the boilers. Next the distillation and "running off" the still. What vaporized, was condensed and became spirits of turpentine; what would only run off was a thick, black mass, the tar; and what would neither vaporize nor run off, was resin. It was these three stages of manufacture that determined the therapeutical fact that the different stages of the disease rendered more or less tolerant the vapors that were continually respired. They had no scientific knowledge, of course, but by observation they became philosophers, and this philosophy was formulated in the following manner: "some niggers couldn't stan' de dippin'"; "some niggers couldn't stan' de stillin'"; "and some couldn't do de tar." But one thing was established beyond doubt—that each stage and condition of these diseases found a remedy indicated in some one of the processes of this manufacture. That it was, in no sense, a result of education, but a question of pure personal experience; and that, finally, outside any argument, exposure in the open air to the vapors of the different processes of manufacturing turpentine, was of large and determined benefit to these invalids.

I have seen also much the same effects on sugar plantations during the boiling season. Particularly, however, in cases of lowered vital conditions. The negroes were always allowed to chew as much of the pith of the ripe cane as they pleased, swallowing the juice; and a savory morsel it is, and, besides, those round the sugar boilers are always respiring an atmos-

phers loaded with saccharine vapor, and I have never seen numberless cases of bronchial and throat troubles, as well as of debilitated condition, either cured or manifestly repaired. It is hardly probable that any scientific statistics were ever made upon these two subjects, but such a study would have a great interest.

CURE.

The *Pres. Med. of Vienna*, says that Dr. K. of Germany has injected under the skin of twenty-four invalids in hospital, half a grain each of iodine, and noted that, to his astonishment, those injections had not killed.

The French editor remarks, that the same result of the good doctor, plunges him into a profound perplexity as to the fate reserved for the twenty-four patients!

ACUTE MENINGITIS TREATED BY IODIDE OF POTASSIUM, IN LARGE DOSES CURE. BY DOCTOR RODET.

From the *Compt. Rend. Acad. Sci. Paris*, April 1st, 1876. The following case seems to us worthy of notice.

A young girl of nineteen years was attacked with tubercular meningitis (fever, vomiting, delirium, insomnia, crises, dilated pupils). Treatment by anti-spasmodics and sedatives. At the end of two days, state aggravated, loss of consciousness, obstinate constipation, monoplegia (?) of the right arm. Death seemed imminent; we continued the anti-spasmodics, and prescribed, 1st, a volatile coating to the nape of the neck; 2d, 45 grains of iodide of potassium, to be taken during the twenty-four hours. The next day there was a slight amelioration, particularly in the intellectual symptoms; same condition of the paralysis; a purgative clyster brought an abundant evacuation. Amelioration made sensible progress; the paralysis commenced to diminish the third day of the employment of the iodide of potassium; the eighth day it had completely disappeared and the patient was convalescent. The treatment was continued, the iodide of potassium, dose on the second day 60 grains, the 3d, 75 grains; this dose continued to the eighth day, then progressively diminished. We have mentioned this case because everything in connection with this terrible disease should attract the attention of the profession.

Doctor Rodet, follows this case with a certain number of other cures with iodide of potass, and cites the opinion of Doctor Fonssagrives, who corroborates his own. But it appears to us that before counting unrestrictedly upon the iodide of potassium it is well to make some observations.

1st. In the case of Dr. Rodet, was there any question of tuberculous meningitis? The suddenness and also the sharpness of the attacks, permits us to believe, up to a certain point, that it may have been a case of meningitis admitting of a more favorable prognosis.

2nd. At the same time that they employed the iodide, they applied the cautery to the nuche, and in all the cases he cites from Fonssagrives, Bourrouse le Laforre, Coldstream, Le Roy de Mericourt, and Robert Turner, we always see the revulsive treatment used simultaneously with the administration of the iodide of potassium. From this, what part of the cure is to be attributed to the iodide, and what part to the revulsives? Yet, the considerable number of cures mentioned by Doctor Rodet, merits serious attention, and in an affection so often hopeless, from the first, we do not hesitate to advise at least a study of the question. We will add that the remedy ought to be given in large doses. Fraternally yours, BARNARD ELLIS, M. D.

FORMULARY.

MIXTURE OF DIGITALIS AND IRON FOR CARDIAC WEAKNESS, WITH DILATATION OF THE VENTRICLES.

R Tr. ferri perchlorid. ʒ ij
Syr. zingiberis. ʒ vj
Inf. digitalis. ʒ v
M. Tablespoonful three times daily.

ONALATE OF CEREUM FOR WOMEN OF REGNANCY.

R Cereu oxalatis. gr. xvj
Ext. hyoscyami. gr. xxxvj
M. Et ft. pil. No. xii
Take one twice a day.

* I can't find this word in my French Medical Dictionary to the army. Translator.

When patients complain of nervousness or of sleeplessness, the potassium bromide must be given, and the following combination with other remedies. A cheap mixture, much thought of by our patients at the University clinic, is the following:

R Pulv. ferri sulphat. exsicc. ʒ ij
Potassa Bromidi. ʒ iij
Rad. calambæ contus. ʒ iij
Aque bullientis. Oj

Steep for twenty-four hours and then strain.

Sig. One tablespoonful three times a day, before or after each meal.

I cannot say much for the pharmacological elegance; but it does good, and we therefore give it largely to our poor patients. The iron and the potash in it may be increased or lessened, or the former may be left out, as the case may be. The zinc valerianate given thrice daily in doses of from two to four grains is one of our best nervines. For a better class of patients the following antispasmodic mixture can be prescribed with very general satisfaction:

R Tinct. hyoscyami. ʒ ij
Flux. ammoniac. ʒ iij
M. Symplic. ʒ iij

Sig. One dessertspoonful at bed-time, or during the day when needed. WM. GOODALL, M. D.

LIQUOR AND MUCUS OF THE MENINGEAL MEMBRANES OF THE BRAIN.

R Pulv. ferri sulphat. exsicc. ʒ ij
Decoct. aloes comp. ad ʒ iij
M. Two tablespoonfuls twice a day.

NEWS ITEMS AND NOTES.

Surgeon General United States Navy.—Philip S. Wales, M.D., Medical Inspector United States Navy, a native of Maryland, has been appointed Chief of the Bureau of Medicine and Surgery of the United States Navy, with the relative rank of commodore, to succeed Chief (Surgeon) J. Winthrop Taylor, placed on the retired list. Dr. Wales is the third son of the late Philip Wales, of Baltimore, who, with his family, after a long residence in Annapolis, Md., removed to Baltimore in about the year 1850, and for a number of years successfully conducted a general grocery and provision store on Warner street, near Conway street, South Baltimore. Dr. Wales was born in Annapolis, and was, perhaps, fourteen or fifteen years of age when the family came to Baltimore to live. He attended the high school, and was regarded by his professors as a particularly bright and promising lad, possessing undoubted talents. He subsequently studied medicine under the tutelage of the late Professor Dunbar, who, for so many years, had an office and lecture hall on Lombard street, near Hanover street. Having attended two courses of lectures at the Medical School, University of Maryland, Dr. Wales graduated in the spring of 1856; Dr. Chatard, now Bishop of Vincennes, Ind., was one of his classmates. He went immediately before a naval examining board in session at Philadelphia and passed a successful examination. He was commissioned an assistant surgeon in the navy April 17, 1856, and was soon ordered to duty at the Naval Academy, Annapolis. On June 8, 1873, he was promoted to be a medical inspector, and at the time of his new appointment had reached nearly the top of the list of the fifteen medical inspectors in the service. Dr. Wales is the author of several works on subjects pertaining to medicine and surgery, and is regarded in the service as a gentleman of rare attainments and solid learning. He is about forty-three or forty-five years of age, and is of fine presence.—*Md. Med. Jour.*

The Société de Biologie in Paris has opened a subscription list for the purpose of erecting a monument to Claude Bernard. It will take the form of a statue, which, by permission of the Municipal Council of Paris, will be placed opposite the chief entrance of the Collège de France.

The new catalogue of the library of the Faculty of Medicine in Paris, which has been nearly two years in preparation, has been recently completed; and the books have been arranged in order on the shelves. The library contains from 55,000 to 59,000 volumes, more than 20,000 of which had been lying for years, covered with dust, in obscure places.

Sudden Death During the Extraction of a Tooth.

Dr. A. Pouley, in his treatise on Foreign Bodies in Surgery, mentions several cases where a tooth slipped into the larynx while it was being extracted, and gave rise to very dangerous symptoms. Two of these cases proved fatal. It is noteworthy that in these latter cases the patients had been rendered insensible by nitrous oxide. A few weeks ago, a similar deplorable accident took place at a dentist's in Paris. The patient was a child, aged 7, who was having a molar tooth extracted. The child struggled violently, and the tooth slipped from the forceps into the larynx. The patient died on the spot, or suffocation. This case is not unlike one described by M. Rigaud, who saw a child upon whom he was operating for a hare lip die under his hands. The necropsy revealed a milk-tooth sticking in the rima glottidis, and completely obstructing the opening.

Lectureship on Natural Science, Aberdeen.

Professor McKendrick of Glasgow University has been appointed Lecturer in Natural Science and Theology for the session 1879-80, in the Free Church College, Aberdeen, under the Banchory bequest. He succeeds Dr. Lauder Brunton, who has held the lectureship during the session 1878-79.

Flogging in the Hongkong Gaol.

We have before us some rather remarkable official reports on this subject. The governor of Hongkong recently appointed a medical committee to inquire into the effects of flogging the Chinese on the back in the Hongkong gaol. This investigation was rendered desirable by the fact that one or two prisoners who had been flogged on the back with the "regulation cat," had afterward become phthisical. It appears from the evidence taken by the committee, that the criminal class of Chinamen are not so strong or so muscular as the same class in European countries, that their wounds take a long time to heal, and that they frequently suffer from congestion of the lungs after they have received a flogging on the back. There was, therefore, good reason to inquire into the subject; and, when the inquiry was once set on foot, it included in its range various collateral matters. Thus, it was found that the floggings which had been attended by such serious consequences had been illegally inflicted, and that the total number of floggings was out of all proportion to the number of the criminals. The prison discipline was, in fact, very defective, and the lash was resorted to on slight occasions. The serious illness of one or two prisoners has, therefore, led to a review of the whole system. The head turnkeys are in future to be experienced Englishmen, the prison dietary is to be improved, and flogging on the back is to be abolished altogether; the only flogging which will hereafter be employed will be with a rattan on the breech, and even this will be reserved for cases of crime, which, by their violence or atrocity, disclose a brutal or intractable nature.

Baldness from Fright.

A curious case of complete alopecia is reported in the *Gazette des Hôpitaux*, No. 83, 1879. A girl, aged 17, who had always enjoyed good health, had one day a narrow escape from being crushed by a floor giving way beneath her. She was very much frightened; and the same night began to complain of headache and chills. The next morning felt restless, and had itching of the scalp. During the following days, she steadily improved, with the exception of the itching. One day, in combing her hair, she noticed that it came out in great quantities. Three days later, she was perfectly bald; and in two more days she had lost every hair on her body. Her general health was good. The patient remained bald, and was still so when seen two years after by the reporter.

A Needle in the Heart.

At a post-mortem examination in a lunatic asylum in Saxony, a needle was found sticking in the heart. It had passed through the posterior wall of the left ventricle. The patient, a man aged 25, had died of peritonitis; he had always felt well previous to his last illness, and never complained of any cardiac troubles. In what way the needle entered his heart remains unknown.

Accidents From Partaking of the Flesh of Diseased Animals.

The Revue de Science Médicale, for July 15, 1879, publishes an account of a series of accidents, caused by

eating ox beef from an animal which had been ill with *malignant pustule*. Two hundred and thirty-three individuals were taken ill with violent headache, vomiting, diarrhoea, colic, and syncope. Eight of the patients have since died. Ninety-four persons partook of raw meat; of these, thirty-eight became seriously ill; twenty-nine presented milder dangerous symptoms; and four died. Of fifty individuals who ate the meat stewed, one was dangerously ill, four were less seriously so, and forty-five presented only slight symptoms of poisoning. Thirty persons were taken ill after eating sausages which had been prepared with the blood and liver of the deceased animal, four of these were very seriously ill, three seriously, and twenty-three only slightly indisposed; two died. Twenty-seven individuals ate the meat roasted; eight of these were very ill, and nineteen only indisposed. Three persons were poisoned by partaking of smoked sausage; two of these were dangerously ill. The same meat, salted and then boiled, only produced slight symptoms of indisposition in two individuals.

A Newspaper in an Insane Asylum.

At the Central Insane Asylum at Vienna, a newspaper is published by the director, made up of original articles by the patients. The other day two of these contributors got angry with each other, and one of them came out with a paragraph the next morning: "The monomania of our confrere is only an idea that his whiskers are carrot tops and need watering every day." The answer the next morning after was: "He needn't laugh. He don't dare to drink a glass of water without a straw to suck it through, for fear he'll melt off his old sugar-candy nose."

Medical Directory of the United States.

We desire to call the attention of our readers and subscribers to the notice of this work, to be found on advertising page 8, and to solicit their co-operation.

Our friend of the *Michigan Medical News* is getting facetious. The disease with which the *Detroit Free Press* man is afflicted seems to be contagious; mercifully, however, attacking its other victims in a very mild manner. Ah! what a boon it is to live in Detroit, this American Athens of humor. View the latest cause of acute cachinitis, from him of the *News*. A local paper gives the following modest account of a pistol-shot wound of the testicle, we should judge: "Tommy G., of Marshall, tried to make a borrowed revolver go off. He succeeded, and got a wound that will result in fixing him so that he will not enjoy life hereafter as much as he otherwise might have done; and according to good old Deuteronomy, he will never go to church any more."—*Mich. Med. News*.

While not venturing to quote scripture as authority, we still remember a little squib *et id omne genus*, that, though not up to the standard of the *News*, is fairly humorous.

"Honest Abe," on visiting a military hospital with a party of ladies and gentlemen, was placed in an embarrassing position by a lady who insisted on knowing *where* a certain soldier had been shot. She had questioned the man of war as to *where* he was wounded, "at Gettysburg" was the only reply to her repeated and variously accented and modified "*where's*." At last, the rest of the party becoming curious likewise, Abraham came to the rescue and said, "My dear Madam, if you had been standing where this man stood when he was shot, the ball that wounded him, would not have touched you." Exit party. Subsidence, lady. The soldier, who was the subject of the pleasant, told it to us, when near the end of a *penal* servitude.

A little French girl was greatly frightened during a late thunder storm, and for a time her parents had their fears awakened as to her recovery from the shock. The electric fluid, it seems, passed very close to her. For a moment she seemed to be suffocating, but the sensation soon passed on into a fit of hiccoughs. These became so distressing that after three days her mother took her to the Children's Hospital in Paris for advice. The surgeon ordered her to the operating theatre, where, on seeing the medical man standing at a table covered with some awful-looking instruments and surrounded by a number of assistants in white aprons, the child became so terrified that she forgot her hiccough, and she was thus cured.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

ANNUAL ADDRESS BEFORE THE AMERICAN ACADEMY OF MEDICINE AT NEW YORK, SEPTEMBER, 16, 1879.

BY

LEWIS H. STEINER, A.M., M.D., OF FREDERICK, MD.,

President of the Academy, Permanent Member American Medical Association, Fellow Am. Ass. Advancement of Science, &c. &c.

(Published by direction of the Council, and with the Imprimatur of the Academy, in THE HOSPITAL GAZETTE.)

GENTLEMEN: Fellows of the American Academy of Medicine! The close of the third year of the existence of our organization shows an increase of interest, on the part of the medical profession, in the objects aimed at in its formation and a more earnest desire to see how they may be secured. The Academy does not claim any merit for the discovery of defects in the preparatory training of those who enter upon a course of medical study; these defects have been long recognized by the profession all over the land. It does not propose any novel method of association to bind in close fraternal bonds the members themselves of the profession; this is attempted by the organizations already in existence which have done so much to dignify the profession of medicine and to eliminate from its ranks the shallow empiric. It does not arrogate to itself any special ability to add to the store of medical knowledge in regard to disease or to the cultivation of State medicine; these are the darling objects of every cultured, faithful physician, towards which he feels himself drawn by the strongest possible ties of professional loyalty and the most urgent claims of philanthropy. It antagonizes no organized effort to improve the profession or to increase the sphere of its usefulness, and it proposes no contest for numbers with any existing society. On the contrary, its members are mostly connected with other medical organizations, and anxious for their success and prosperity.

Its main object is the union of medical men who recognize the old college curriculum as furnishing the most efficient preparatory course for those who intend to enter upon the study of medicine. Such an union, it is believed, will enable its Fellows to exert an efficient influence towards the elevation of the preliminary requirements of our medical schools, and to encourage ambitious youth to lay the foundations—deep, firm and broad, upon which they propose to rest their medical studies, while it will not prevent them from contributing, in common with the members of other organizations, towards the accumulation of theoretical knowledge and its suitable practical application to the wants of mankind. This main object is that which is peculiar to the American Academy of Medicine. For this its Fellows are chiefly banded together, and to its attainment their efforts are mainly directed.

The Academy strives to utter, in a definite, distinct form, that which has been struggling to secure articulate expression in many ways, and to secure by union of effort that for which every lover of his profession is ardently longing. Its numbers have slowly increased since its organization. In the nature of the case its membership must be somewhat limited—restricted as it is by the requirements constituting eligibility to admission. Still there is good reason for congratulation as to its present condition and future prospects. Its past makes us hopeful as to its future, and having not rashly assumed a task deemed important, we feel emboldened to continue our efforts to secure its accomplishment.

I deem it neither unwise nor malapropos to select as the subject for the address, required of the President by our Constitution at the annual meeting, *The Preliminary Education needed by the Medical Student*, although in its treatment I may be obliged to go over ground already so ably trod by my two distinguished predecessors, because we cannot lay down too distinctly what we consider to be the main object which the Academy is striving to attain. In doing this I shall take for granted, what has been reiterated over and over again by the medical associations and journals of the country as to the defective nature of the training of many, who have rashly entered into the ranks of a learned profession and are now recognized by virtue of their medical diplomas as the peers of those who have earnestly pursued what is believed to be the best possible preparation for professional study. The public utterances from these sources on this subject have been so numerous, that their repetition would be wearisome to both speaker and hearer.

The necessity for the existence of the three great professions of Theology, Law and Medicine arose from the disturbance of the relations that primarily existed between man, the Deity, his fellow-man and his own physical nature. Had the Fall not occurred, there would have been no necessity for the existence of either of these. Without the penalty inflicted for the violation of the sole prohibition laid upon man, these relations would have remained unimpaired; he would have been a dutiful, law-abiding creature, delighting in the paths of right and shunning those of wrong, a loving brother, unaffected by the deteriorating influences of low and selfish considerations, and a being living strictly within the laws and requirements of his own physical nature. But the beautiful harmony was destroyed by his

First disobedience and the fruit,
Of that forbidden tree, whose mortal taste
Brought death into the world, and all our woe,
With loss of Eden.

Thenceforward a struggle was necessary to re-establish the relations thus broken with the Deity, his brother, and himself. The violation, indeed, of the first, made fratricide possible to Cain, disease a terrible fact, and death an awful certainty. The re-establishment of these relations became a life-work, needing continual assistance or advice. At first the priest seems to have combined the duties now divided among the members of the three professions. In time, as knowledge extended, these duties became more and more distinct, until at length the minister,

the lawyer and the physician were recognized as having definite and distinct functions to perform, and as being set apart to aid respectively in the due rectification of man's spiritual, fraternal and physical aberrations. Their functions were esteemed of pre-eminent importance, and on that account their professions were looked upon as demanding all possible culture and as being essentially *learned*. Indeed, learning was for a long course of years absolutely confined to these three classes of men, on whose rolls the names of some of the noblest as well as the wisest may be found inscribed.

The preparation necessary to the special study of either of these great professions was considered as essentially the same. Each requires careful intellectual training and discipline of him who would enter its domain and master its contents; each needs a certain range of knowledge to fit the student to con its alphabet so that he may read its pages so replete with wondrous lore; each demands earnest devotion and zealous study of those who expect to attain distinction among its cultivators. Occupying the high distinction of learned professions, no one should aspire to a place among their members unless he has employed all due diligence to justify his right and title thereto. Whatever will secure him mental discipline combined with the special knowledge, which the experience of many men extending through many years has determined as best adapted to fit him for the professional studies he is to encounter; *that* he dare not neglect if he would achieve success legitimately. I say mental discipline *and* the special knowledge determined to be best suited for his future studies. There are those who claim that the whole object of academic culture is the former alone and that any course of study—of whatever branches composed—which will secure such discipline, is equally effective and of equal value. Claiming for this opinion the force and power of a self-evident axiom they proceed to adjust equivalent courses of study, supposed to be adapted for the production of like results, and submit these to the election of the individual student. But, although they claim that some of these are at the same time specially fitted for those who propose to devote their lives to commercial, agricultural, mathematical, or pursuits involving the practical application of the sciences, they, at the same time, seem to ignore the fact that there must also be branches of study that best fit the student for ready and easy entrance upon the fields of knowledge, which he must traverse in order to attain position and distinction in either of the professions already named. Electing a special curriculum, adapted to the practical occupations to which I have referred, is recognized as exceedingly judicious, but the adoption of an academic course, that will best prepare for the study of either theology, law, or medicine, is considered of slight or no importance. Here mental discipline is deemed of paramount importance, and special preparation considered of little value. Much of this order of thought is due to the so-called practical tendency of the age, which ignores the fact that he is best fitted for practical work who is most thoroughly grounded in the principles and laws which must underlie it—that he is best prepared for special duties who has provided himself with all necessary acquaintance

with the adjuvants that will enable him to comprehend these duties and everything pertaining to them. We need both mental discipline and special knowledge in the years of preparation, and this fact I desire to emphasize prior to the consideration of the nature of the course of study, which is contended for, by most of those who constitute the membership of the Academy, as needed by the student prior to his entrance upon the study of the profession of medicine.

1. We may say that the preparatory curriculum should comprise, in a general way, whatever is necessary to secure a scholarly command of the English language. This must include a familiar acquaintance with its orthography and grammar; surely a requirement so evident that I hesitate to mention it, and yet the fact of its absence is too often painfully obvious. The good, old, tried and approved, persevering method of studying these rudimentary branches has been too much discarded of late years, and the result is that not all professional men show themselves faultless in their spelling and grammar. We find a proclivity to superficiality, even as low down as these foundations, which too often shows itself afterwards in every course of the superstructure that is placed upon them. And yet defects here, whenever they manifest themselves, must mar the general effects of that superstructure, in spite of every effort to make it strong or ornate. Further; the command of an easy, simple style of composition, such as is within the reach of every one who studies the masters of our language, and strives to appropriate as much of their peculiarities as may not antagonize or interfere with his own individuality of style, is another acquirement not to be despised by one, who will be called upon frequently to give opinions, either verbal or written, where clearness and simplicity are always to be preferred to oracular mystery and uncertainty of meaning. The greatest compliment ever paid Macaulay was the remark made by Spottiswoode's proof-reader, "who declared that in the whole of the history, he had come upon only one sentence which was not apparent to him at first sight." Such an ability to think clearly, and to make one's thoughts intelligible to persons of moderate capacity, is an accomplishment that can be most readily secured by the careful and loving study of the classic authors of our language, and is within the reach of every one. It must, however, be striven after in early life, if one is to employ it naturally and without the evidence of constant, wearisome labor, and hence I dwell upon it here as an important feature in the preparatory education of the medical student. His future studies will also be much advantaged by a command of the "well of English undefiled," to be acquired only by familiarity with those masters, who have contributed so largely to its incalculable wealth.

But to these studies must be added those that will reveal to him the mechanism of solid, substantial reasoning, together with the methods of forcible and beautiful expression. He must be taught to penetrate the hidden mysteries that constitute the priceless stores of *logic*, and the rich mines of beauty that make up the wealth of *rhetoric*. The laws of thought, of the science that "deduces

ideas or conceptions one from another, and constructs them into propositions, arguments and systems,"—the rules that govern simplicity and clearness of expression, along with those that imperatively regulate correctness of grammatical construction, these three formed the *Trivium* which the great scholars of the middle ages, as well as those of the ancient classic nations of Greece and Rome, considered indispensable to all genuine, reliable learning. No modern progress has freed us from the necessity of following the same routine, if we would attain like results. Can either be dispensed with in a profession, where the results of accurate observation must needs be connected with their causes by no slight, imaginary thread, but by the most enduring chain, and where the *post hoc* never unerringly implies the *propter hoc*? Are they not all-important where the results of logical thought must needs be clothed in intelligible words and simple diction? Where, indeed, has their absence been so clearly shown as in the history and practice of medicine with its wrecks of illogical theories stranded upon the shores of truth,—its long lists of dogmas and systems built upon superficial induction, in which homeopathy, hydropathy and Thompsonianism loom prominently forth, and where countless productions of the animal, mineral and vegetable kingdoms are shown to have been unduly exalted to the rank of specifics and then remorselessly almost thrown out of view—a long list extending from mercury itself down to cundurango or whatever may have been the last idol set up, by a false logic, as worthy of devout attention on the part of the empirical practitioner and his confiding patient. Have we not had warnings enough, that these studies should not be neglected by him, who craves the honors and assumes the responsibilities of the doctorate of medicine?

2. The study of the languages of Greece and Rome is also needed not only for the mental discipline they provide, but for the special knowledge they furnish the future student of medicine, and we add them to the list of those requiring his attention. I am aware that there is a school of educators in these days, which claims that the modern languages may be judiciously substituted for those of the classic nations, both on the score of discipline and practical utility, and that this school has many disciples not only among those who have been denied the advantages of classic culture, but includes some also who undervalue the advantages they have themselves enjoyed from their study. Recent utterances from some of our best thinkers show, however, that the conclusions of this school are being reconsidered and in not a few cases reversed. It is being once more claimed that "the classics are the basis of all progress in education," and that history shows how "from the moment Europe went back to the study of the classics a reformation commenced and scholarship revived." Surely there must have been reasons entitled to the profoundest respect even in our days, which justified the time and attention paid by our ancestors to classical study. It could not have been that the field of knowledge was restricted to philology, because we have abundant proof that there were giant minds then that contended with profound problems in other depart-

ments and secured truths, which became afterwards the stepping stones to still higher and more important discoveries. And yet, there was scarcely a scholar to be found in any department who had not first undergone a thorough training in the classics—an apprenticeship, so to speak, to fit him for stern study and earnest grappling with intellectual problems—a course of intellectual gymnastics, as it were, to qualify the athlete for any encounter he might afterwards have in his special, professional studies. This order of training, having been tried, tested and approved, was demanded of the priest, the lawyer, the physician, and the cultured man of every grade and position in society. It was so efficient that similar results have rarely ever been attained by any other course of preparatory study.

I crave pardon for repeating here, what I have previously said on the subject of the effects of classical study on the mind, so far as its disciplinary influence is concerned. "The peculiar difficulties the classics present to the student are prolific in very important practical results. They require that his memory be trained to the retention of words and their significance, and his judgment and æsthetic taste to the discrimination of delicate shades of thought, the mastery of profound conceptions as well as artistic delineations, the appropriation of ideas not easy to grasp but when secured worth more than the labor expended. They furnish great assistance in the formation of a judgment capable of weighing delicate shades of meaning involved in forms of expression of rare beauty and wonderful power. Their student is taught to judge of men by an exact rule, which finished expression enshrining sturdy thought so certainly always supplies. He acquires analytic power, in following the precise steps of reasoning employed by philosophers who were experts in their specialties, terseness of expression such as can only be found among people of high and thorough culture, accuracy of delineation peculiar to historians who were masters of the idea of history, and cultivated diction by constant association with the musical current through which poetic thoughts of the highest fervor flowed."

But there is also a direct benefit obtained by the student from the real utility of these languages themselves. Not only are many words in the English language derived from them, but the nomenclature of the medical profession is constructed chiefly from materials which they furnish. The text books of the sciences preparatory to the study of the practice bristle all over with words compounded from these flexible languages, so as to bear some direct reference to the ideas or things which they represent. To use them intelligently and not as mere sounds without sense arbitrarily applied, one must be acquainted with the sources from which they are derived. Indeed the technicalities of all the physical and biological sciences is at best a jargon, unless one is supplied with the key which these languages furnish, while with it all is replete with significance and an appositeness that commends it to the student. But the very circumstance, that most scientific terms are formed from languages universally recognized as specially suited to such a purpose, insures the naturalization of these terms in all the modern languages with only

occasional slight changes in their terminations. Such catholic employment of the same words makes the study of scientific text-books somewhat simpler to the student and greatly aids him when, with the view of increasing his stores of professional knowledge, he attempts to read foreign authors.

On the whole, it must seem almost incredible to any one, who has availed himself of the advantages furnished by a faithful study of Latin and Greek before entering upon his medical studies, that a student could deliberately forego these,—that he would undertake the task of fighting his way without the assistance they are able to render at almost every step of his progress. In all my experience I never heard a physician, who had faithfully gone through a classical course under competent teachers, regret the time spent in forming an acquaintance with these ancient languages, while it has been my lot to meet many who deeply lamented their error in neglecting them in their youth and labored zealously to repair the same afterwards by private study at an advanced age.

The attempt has been made to shelve classical studies by the sneer of *cui bono*, as though there was nothing valuable in the world, or indeed in life, unless it could be expressed in dollars and cents. A cool, calculating, heartless utilitarianism has striven to show that there is no adequate dividend for the capital of time and labor expended. A would-be practical spirit has elevated its nose in contempt at what it ignorantly asserts has no sympathy with, or part in the present busy age. And yet, if what I have said, in defence of classical studies, be supported by fact, then are these most practical and useful for the present as they have been in the past and as they will be for all future time. Neglect and contempt will simply bring their own punishment, while respect and earnest study will ensure a result that is far above all possible valuation in mere dollars and cents.

3. Mathematical studies must also form an essential part of this preparatory course. Ideas of space and time to become intelligible require their assistance. They develop analytic power and the faculty of concentration of thought, which are indispensable to the true student. They tend to the cultivation of the habit of giving fixed and individual attention to any subject under consideration, and of securing concentration of the mental faculties to its real nature. Hence their value is paramount to all others in the curricula of technical schools, and in institutions, like West Point or Annapolis, where military or naval officers are to be trained to perform duties demanding the highest analytical power under circumstances of the most distracting nature. Without their assistance these officers would not be prepared to understand the complicated and confusing situations in which they are often placed, and to devise, as it were, on the instant, the means of commanding them or of avoiding threatening peril. In the technical schools, where construction is specially taught they are necessarily indispensable as the foundation of the instruction there given, while in those where physics and chemistry constitute the chief subjects of study, they must go hand in hand with these if results are to be attained that can claim the merit of accuracy and reliability.

Although probably less popular than any other class of studies, they singularly combine the benefits of discipline and practical knowledge, notwithstanding the fact that they have to do with abstract truth and are confined essentially to the domain of pure reasoning. But they demonstrate at the same time the grand axiom that "truth is always practical, no matter how abstract may be the domain in which she dwells," since the place held by mathematics in the sphere of human practical effort is that of a crowned head upon an imperial throne. Hence the ancient philosopher, Plato, was wont to commend its study as of incalculable value, and we find that, in all ages and with every nation that has shown any progress at all, it has had its enthusiastic votaries, who have found inexpressible delight in investigating the nature of its truths and their numerous applications.

Now, the peculiar results upon mental training, which mathematical studies furnish, are no less necessary to the physician than to the soldier or the sailor. He is also called upon to practice his profession in circumstances and amid surroundings that demand the possession of the faculty of divesting himself of the influences of passion and feeling, of eliminating the perturbing agencies which constitute the environment of his patient, of piercing to the very core the causes of morbid symptoms, and of readily employing the agencies that will assist nature to eliminate all abnormal influences from the human body. He must be able to command himself and all his energies under the most adverse circumstances for cool and deliberate thought, to use the most acute analysis to avoid mistaking an effect for a cause, to put aside in the discussion of a case whatever is accidental while he gives due weight to what is incidental and pathognomonic, and finally so to employ the *materia medica*, which scientific discovery has furnished him, that abnormal actions shall be suppressed and those which are normal restored. And no study will go so far towards the cultivation of the faculty of doing this as mathematics. But its importance does not cease here, since its rules and teachings find direct application in every branch of medical science no less than in the practical and mechanical sciences of the day. Physiology, anatomy, chemistry, and the different specialties that now claim attention from the medical man—all have recourse to mathematics for assistance in securing exact results. The doctor who is ignorant of its teachings, will find it difficult to attain any marked distinction in our profession at the present time. The great masters willingly acknowledge their indebtedness, and he who would follow in their footsteps must be ready, like them, to ask and receive aid from the mathematical sciences.

4. There is another class of studies which also holds a fixed and necessary place in the normal preparatory course of the medical student, and whose right to such distinction is not contested by the modern, utilitarian spirit. I refer to those studies which are specially called scientific, including physics, chemistry and biology. These exercise a powerful influence in the way of mental discipline, while they furnish at the same time an immense amount of information absolutely essential to the

medical student as a portion of the foundation of his medical knowledge, and also necessary to the successful practical application and use of the same in his future professional life. The first of these three, physics, Bain divides into molar, or that which has reference to motion in mass, and molecular to motion in molecule. He shows that its methods are partly deductive and partly inductive. "As a deductive science, molar physics is a branch of applied mathematics, checked and controlled by the perpetual reference to facts. As an inductive science, physics makes an unsurpassed display of the machinery and resources of observation and experiment. It also shows to advantage all the methods of experimental elimination. The facts being subject to the great law of conservation, the deeper experimental problems consist in ascertaining the collections or arrangements for transmitting or evolving the different modes of force." He further shows that in the second, chemistry, we have as the special fact chemical attraction, which, however, involves these subsidiary facts—the definiteness of the properties of the elements, the evolution of heat in their union, with the disappearance of their chief peculiarities. It is naturally divided into two parts, inorganic and organic, the one leading to the consideration of mineralogy and geology, and the other to that of biology itself. In the latter we have to do with the definition of life in plants and animals with its varied manifestations in their respective kingdoms, and here we encounter, independent of the deductions derived from physics and chemistry, a series of laws which are more or less empirical, which in some cases are temporarily recognized as fixed laws of nature, on account of the extended nature of the agreement on which they are based.

The value of the training, that the study of such facts and the laws controlling them will secure, cannot be gainsayed for a moment in our present discussion. There must be great faculty of observation, ability to grasp facts in their true relations and readiness to generalize the same in him who would achieve success in medicine. He must learn to see things as they are, and not as any preconceived hypothesis would have them to be. He must learn to distinguish between what is accidental and what essential, and must be ready, even in the presence of what are called laws, to thrust them aside should new generalizations show that they do not satisfy the definition of what is real, true and immutable. All this is taught him in the study of these sciences, probably more definitely than in any other range of studies.

But their importance is also not confined to the mental discipline acquired by their study, since they contribute directly to the elucidation of every branch of medical study. Physiology, anatomy, materia medica, obstetrics, practice and surgery,—these and the specialties are so dependent upon physical, chemical and biological sciences, that they could not have attained their present proportions, had it not been for the assistance constantly rendered them by these sciences. The student, who is devoid of their aid, must accept blindly every statement of his text-books and every dictum of his teachers without the ability to examine and test their

truth. He is converted into a quasi-machine to perform a certain fixed task in one definite way, without the possibility of ever adapting it to any change of conditions whatever. On the other hand, he who avails himself of their assistance in his professional labors, is ready to profit by every recent discovery made by their cultivators and to place himself in the ranks of the progressive men of his age. But while it is universally admitted that they should constitute a portion of the academic preparation required of the medical student, still there is rarely any examination made by the faculty of our medical schools of their matriculants to ascertain whether they have been studied or neglected. The mill is expected to produce excellent flour of the highest grade, but no care is taken to select grain that will furnish such a product as a result of the machinery and process employed.

In addition to these four classes of studies, may be mentioned geography, universal history, political science and the elements of others that the age requires as an essential portion of the culture of every educated man, together with some knowledge of one or more of the modern languages. To recapitulate,—we have laid down as ordinarily needed by him who would enter upon the study of medicine, an acquaintance with the vernacular and everything that will enable him to employ it readily and with power, with the Latin and Greek languages, with mathematics, and with experimental and biological sciences,—supplementing these with the studies which modern culture declares necessary for every educated man. I have not ventured to state in what order they should be pursued, nor how far each should be carried. The order may be changed and the extent depend upon circumstances connected with the plans adopted by the administration of the academic institutions where they are taught, although we may claim that the more thorough the command it furnishes of these subjects the better will be the preparatory training and the greater the amount of knowledge attained, which will be serviceable in the professional studies that are to follow thereafter.

These branches of study constitute what has been known as the *old* College-curriculum of this country, in contradistinction to the different curricula proposed now in many of our institutions as preliminary to technical studies, or as suited for those students who elect to discard the classics on the ground that they are useless and unsuited to the needs of a practical age. This old curriculum has been pursued with great exactness, and instruction given in its specific branches with enthusiasm and ability, in some of our academic institutions, small as well as great; in others superficiality has marked the daily teachings of improperly-fitted professors and been stamped indelibly in the defective attainments of their graduates; and in others still, the training of the college has been rashly thrust aside to make way for the magnificent pretensions of the university, to the great detriment of their students who enter totally unprepared for university methods and university studies. The course of studies here enumerated has no special efficacy, unless each is faithfully and zealously studied,—honestly, wisely and intelligently taught. Nor has "the *old* College

curriculum" any talismanic power to transmute an ignoramus into an intelligent, zealous student, prepared to appropriate suitably all the professional pabulum that may be furnished in the medical college. Superficiality has too often reigned with undisputed authority in our academic halls, and aided in bringing diplomated honors to such low repute, that at times those who have richly earned their literary degrees have indignantly refused to wear them. But such superficiality with its inevitable proclivity to empiricism is not only peculiar to academic institutions, whether at home or abroad. The professional schools, forming a part of the university proper, furnish evidences occasionally of like results. There are clergymen, lawyers and doctors, as well as academic graduates, who disgrace the titles and degrees with which they have been honored. There are men with military and naval titles, of all degrees from the lowest to the highest, who are ignorant of their profession, and more than suspected also of being devoid of personal bravery. Must Sherman discard his rank and title because Mulberry Sellers sports the military prefix to his name, or Porter scout the title of Admiral because a Sir Joseph Porter is the object of public amusement as the first Lord of the Admiralty? Shall the Doctor of Medicine, who has richly earned his diploma, disown his degree because the contemptible quack has also a parchment certificate of fitness, even if purchased from a venal college? Shall the Lawyer take down his sign and disclaim the designation of Attorney and Solicitor, because his profession is disgraced by pettifoggers? Shall the earnest and able minister renounce his calling, because the hypocritical pharisee, invested with ecclesiastical robes too often for the honor of religion appears, with broad phylacteries and pretentious prayers, in public assemblies of the people? And if not these, why should the collegiate graduate, who knows that he has earned his academic degrees at a reputable institution, discard or undervalue them because of the ignorant pretenders, who disgrace the diplomas they have secured from unprincipled collegiate institutions?

The old college curriculum has a significance to him who has diligently pursued its requirements. In advocating it now as the best possible preparatory course for the professional student, we have the right to demand that it shall be all that it claims to be, and that the training and knowledge it can furnish when faithfully maintained, should be made over to every student who subjects himself to it, and is mentally capable of receiving its benefits. Degrees should neither be rejected or despised because they are improperly worn by many, but we may demand that they shall only be conferred where they are deserved, and upon those who will honor their *almae matres* by suitably wearing the degrees they have fairly and justly received.

The old college curriculum furnishes the preparation which we claim will best fit ambitious youths to enter our medical schools, with the greatest probability of fully appreciating and appropriating the instruction there offered. While, through the power of public opinion, it is hoped to secure a recognition of this idea, so that the number of those who shall attempt to enter the profession, except through this doorway, shall be greatly diminished and reduced

in the distant future to exceptional instances, we must also depend upon this same public opinion to require that the teachings of those, who have the curriculum itself in charge, shall be full and thorough instead of slight and superficial. The Baccalaureate of Arts must be made to mean exactly what it meant years ago, so that he who wears it may be recognized as entitled, by virtue of the training and special knowledge to which it certifies, to take a place in the professional schools or to pursue his studies in still higher departments of knowledge and research.

It is somewhat surprising to find that while academic institutions, duly empowered to confer literary degrees have largely increased in numbers of late years, and are indeed springing up with mushroom-like rapidity all over the land, "the proportion of students to population, in spite of the multiplication of colleges, appears gradually to diminish." This fact has recently been adduced for another purpose by Dr. F. A. P. Barnard, the learned President of Columbia College, in an address on "Education and the State," recently delivered before the Regents of the University of the State of New York. Dr. B. says: "Taking the country through, the aggregate number of students, candidates for the degree of Bachelor of Arts, in our colleges, is to the total population of the country nearly in the ratio of one to twenty-five hundred. Less than half a century ago it was not far from one to two thousand. In half a century the population has increased nearly four-fold, the number of colleges three-fold, and the aggregate number of the students in arts in all the colleges put together, but little more than twofold." From this statement we can clearly see that the demand for academic preparation of all professional students should be more urgently pressed than it has been of late years.

Quackery does not only exist in our profession. It frequently finds a place in law and theology and alas! sometimes dons the instructors' robes in our colleges and other schools. Its existence, however, is always a strong proof that there is a genuine reality of which it is the base counterfeit. This genuine reality we must seek out, must protect and encourage, must enthrone wherever it is entitled to authority, and must contend for with all the might that in us lies. Quackery in education is probably the worst form it can possibly assume because "just as the twig is bent the tree is inclined," and when the secret springs of truth and knowledge are poisoned at their very source, we can not expect these to vivify and invigorate and benefit the race as their channels widen and their current increases in force and rapidity. The quack-teacher is the greatest possible enemy to healthy, spiritual, mental, or even physical progress. He must be dethroned, and his place filled by genuine merit; but the only power that can perform such a giant task in this country is the might of positive, pronounced public opinion.

The policy of our government encourages free competition in agriculture, manufactures, and the mechanic arts; it allows rivalry in skill and labor, and discountenances any attempt to fix prices or to impose unnecessary restrictions, upon the ingenuity of man and the rewards that it may claim, by definite legislation. The effect of this policy is to throw

the individual, the company, the society, the institution upon its own resources, so that by its own inherent energy and force it may succeed or fail in the work undertaken. This policy doubtless results from a belief that the fittest will survive and flourish. A government wholly paternal is not popular with us, although we advocate the exercise of protection for every citizen in his struggle for life and success, so that he may not be interfered with by his neighbors. The tendency is to the *Laizzez-faire* system of letting every individual and every enterprise pursue its own natural course without coddling on the part of the government. But this very policy gives the pretender a place in the race for success. By dint of appeals to avarice and the lowest forms of ambition his position, instead of being insignificant, becomes prominent, threatening the displacement of genuine merit from its true sphere. We get veneer instead of reality, glitter instead of intrinsic worth, paste in the place of precious stones,—quackery in labor, mechanics, manufactures and all the industrial arts, and, what is still more, sciolism instead of science, pretense instead of merit in those professions which are entitled to high consideration on account of their close connection with man's spiritual, social and physical needs. And yet this very liberty of action, which thus degenerates to a species of libertinism, carries along with it the remedy for the evils which its abuse creates. If flimsy show and base pretense are allowed a free field, this is not denied to real worth and genuine excellence. They must, however, labor the harder to secure success and to shine by contrast. They must cultivate a taste for the solid and enduring, a desire for that which is real and true, a power of discrimination between the counterfeit and the genuine with a strong tendency to elect the latter under all circumstances. This requires constant attention to the creation of a healthy public opinion, which will insist upon protection of the public from impostors in every human pursuit, and appeal to the honest pride of every man to so fit himself for his calling that he shall become a master and produce the best possible results.

The story is told of Patrick Lyon—the famous Philadelphia blacksmith—that, on being asked by a worthy Quaker gentleman why he took such pains to polish a screw which would be covered by a plate and thus concealed from sight? his reply was—"Some day this engine will be taken to pieces, and no man must be able to say that Pat. Lyon ever slighted any part of a job." To aid in the creation of a healthy sentiment in reference to the honest performance of every task undertaken, is to aid in the downfall of quackery and in the prevention of inadequately prepared persons from rashly entering upon the prosecution of any occupation or profession. Such a sentiment will swell the number of those who, like the somewhat exceptional Pat. Lyon, are determined never to slight any part of their duty, however trivial or insignificant it may seem to be.

Fellows of the Academy! I congratulate you upon the gradually increasing interest manifested by the profession in the object of our organization. Our list has been swelled at this meeting by the names of some of the best men in the profession,—

each one the centre of an influence that must aid in the future attainment of success. What we need is that we shall be true to these, to each other, and our sense of right. A great reformation is needed, but those who combine to aid in it must not suffer themselves to be swerved by any side issues from the main object. Holding this steadily in view, and sinking all selfish considerations, let us earnestly strive, each in his own particular sphere, to secure the ends of our organization,—proudly conscious that in so doing we shall be faithful to our professional obligations, and true to the cause of suffering humanity.

HOSPITAL RECORDS.

BELLEUE HOSPITAL, NEW YORK.

(Presented at the H. G. A. Meeting.)

MULTIPLE ANEURISMS.

A. C. Thompson, age 43, widower, moulder, was admitted May 10th, 1878. About two and a half years previous to his admission the patient had had a great deal of pain in the right leg, which soon became almost powerless. In October, 1877, a cancer was noticed in his right breast; this increased steadily till it attained the size of a hen's egg, when, in May, 1878, it was removed by Dr. Mott. He was then admitted to the hospital to recover from the effects of the operation. The pains in the lower extremities still persisted, and were at first supposed to be rheumatic, but none of the remedies usually employed in that disease afforded the slightest relief. Soon the patient was unable to raise or otherwise move the lower extremities, though they were still very painful and hyperæsthetic. A little later he complained much of pain in the back, side and both arms, and he began to have severe convulsions, at first affecting the face, neck and upper extremities; afterwards confined to the face, both sides being involved, the left more markedly. In November, 1878, he lost control over the sphincters, passing urine and feces involuntarily. Dec. 5th, while the patient was being raised in bed, the left femur suddenly snapped, and was found on examination to be fractured about the middle of the shaft. Coaptation splints and a long posterior splint were applied. The next day he had two severe convulsions, followed by an attack of œdema of the lungs, which was relieved by the application of dry cups. About the same time a tumor was noticed just below the great tuberosity of the left humerus; this increased in size, growing principally upward, till the patient's death. It was also observed that the lumbar portion of the spine projected very much forward, pressing before it the aorta, the pulsations of which were distinctly visible to the naked eye, and were accompanied by a bruit resembling quite closely the phenomena of an abdominal aneurism. The bowels were at times obstinately constipated, requiring the use of the strongest drastic cathartics to produce a movement. He had a cough and expectoration such as are met with in chronic bronchitis. His intellect had grown steadily feebler, so that for some

time before death he was quite childish. His appetite and digestion remained tolerably good. February 20th, 1879, he began to sink rapidly, and 10:30 P. M. he died. In the way of treatment strychnia, quinia, Fowler's solutions were tried, but they did no good; so that toward the last he received two hypodermic injections of 10 minims each of Majendie's solution and chloroform inhalations during the convulsions.

Autopsy, 40 hours after death.

Skull.—Two grayish yellow nodules about 2.5 ctm. in diameter are found situated one in the parietal and the other in the frontal bone, and they have caused the absorption of the inner and a part of the outer table. They do not project into the cranial cavity.

Meninges.—Sinuses normal. Dura mater slightly adherent on the right side to a small nodule about to be mentioned.

Brain.—On the left hemisphere, at the point where the second frontal abuts against the ascending front convolution, is situated a nodule, grayish-white, sprinkled with yellow points, flat, nearly circular, 1.75 ctm. in diameter, and elevated two mm. above the surface of the brain, and involving portions of the above-named convolutions and the superjacent pia mater. On the right hemisphere, and nearly symmetrically placed as regards the former, is a second smaller nodule, adherent, as already stated, to the dura mater. The corpora striata and optic thalami are normal. A horizontal section through the white substance of the right hemisphere reveals four cysts, one in the parietal and three in the occipital lobes, containing a yellowish, somewhat viscid fluid, and in one case some blood. These cysts vary in diameter from 0.25 to 2 ctm. Their walls vary in thickness from one to three or four mm. and present an appearance similar to that of the nodules on the surface of the brain. The largest, in the parietal lobe, extends from the nodule in the surface to the lenticular nucleus. The white substance about the cysts is somewhat softened, of a faint yellowish tint; only one of the cysts, that in the parietal lobe, involves gray matter. In the occipital lobe of the left hemisphere are two small, firm nodules, with translucent center and opaque periphery.

In the cerebellum is a cyst 1.5 ctm. in diameter, on the under surface of the middle lobe, and in the posterior border of the lateral lobes, symmetrically placed, are two firm nodules, with yellowish-gray periphery and translucent and colloid-looking center. Three quite small, firm, similar nodules are situated in the medullary substance of the right lateral lobe.

Crura cerebri, corpora quadrigemina, pons, medulla oblongata and spinalis, and cauda equina apparently normal.

Lungs contain a large number of firm, resistant nodules, varying in size from a pigeon's egg to a small pea, and which can be turned out from the pulmonary substance like the kernel from a ripe peach. They are translucent, of the consistency of tough jelly, and apparently belong to the class of colloid cancers.

In the *pleurae, liver, spleen and kidney* are similar new growths, though not as large or numerous as

those in the lungs, and in the kidney partly broken down into cysts.

Bones.—The bodies of all the cervical and the first two or three dorsal vertebræ, and portions of the adjoining ribs are united into a semi-solid, gluey-looking material, which cuts like cheese, leaving a smooth, glistening surface. The shaft of the left femur at the seat of fracture is the seat of a new growth, the compact tissue surrounding which is about of the thickness of writing paper. The neck, tuberosities, and head of the left humerus are also degenerated, as well as the right acetabulum and head of the right femur, all of which are in a condition similar to that of the bodies of the vertebræ. The digestive tube and heart were normal.

TRANSLATIONS.

ETIOLOGY AND PROGNOSIS OF GLYCOSURIA AND OF DIABETES.

BY
DR. JULES CYR.*

(Translated and abridged for THE HOSPITAL GAZETTE.)

BY
EDWARD N. CHAPMAN, M.D., of BROOKLYN

In this work of Dr. Jules Cyr, on glycosuria and diabetes, so highly honored by the Academy of Medicine, there is a vast amount of research in a direction that must eventually lead to a better understanding of a morbid condition hitherto defying the science of medicine. The study of the pathogenesis of a disease, in the light of physiology and pathology, can alone afford a sure basis for clinical observation; especially when, as in this case, there are no organic lesions to guide the inquirer. Glycosuria is the simple presence of sugar in the urine; whereas diabetes is the settled malady.

The work is divided into two books. In giving a brief abstract of its contents, the subject of each chapter is indicated by Italics.

BOOK I.—THE ELEMENTS OF ETIOLOGY IN THE ORDER OF PHYSIOLOGY.

Heredity.—The author quoting numerous writers—Prout, Robert Willis, Bouchardat, Mosler, Cantani, M. Howship Dickenson, Sir Henry Marsh, Bence Jones, Seegen, Pavy, and others who more or less strongly favor the hereditary nature of diabetes—concludes that this element is of great importance. It has been objected by Marchal (de Calvi), Charcot, Billard (du Corbigny), that members of the same family are subjected to the same exciting causes—food, habits, manner of life, etc.—and hence what would induce morbid action in the one might also in the others. The author thinks that there may be a pathological relationship between diabetes, gout and gravel, as the diseases are at times prevalent in the same family. Marchal (de Calvi)

* *Étiologie et Prognostic de la Glycosurie et du Diabète*, par le Docteur Jules Cyr, Médecin-Consultant à Vichy; Membre de la Société de Médecine de Paris, et de la Société de Médecine Pratique; Secrétaire Annuel de la Société Médico-pratique; Lauréat de l'Académie de Médecine, *Memoire Reconnu*, by l'Académie, Paris, 1877.

and Charcot offer examples. The author is also of this opinion that profound affections of the nervous system, epilepsy and insanity for example, may predetermine diabetes in the next generation.

Temperament, Constitution, Obesity.—Temperament seems to exercise little influence, whereas, an obese constitution plays an important role. This opinion is sustained by Prout, Bence Jones, Marchal de Calvi, Seegen, R. Zimmer. Seegen found thirty cases in 100 diabetes and Zimmer eighteen in sixty-two.

Age.—Diabetes is met with most frequently in middle life. Of 990 cases, collected from numerous authors, there were 10 under 10 years of age; 66 from 10 to 20; 125 from 20 to 30; 191 from 30 to 40; 232 from 40 to 50; 225 from 50 to 60; 124 from 60 to 70; and 17 after 70 years.

Sex.—More men than women are the subjects of diabetes. In England, from 1850 to 1870, there were 11,042 cases, of these 3,737 were women and 7,305 were men.

Climate.—Diabetes is very common in England. Babington had thirty-three cases under treatment at one time. Prout met with seven hundred cases in thirty years. In Normandy, Ceylon and Brazil it is quite frequent; but in Austria, Germany and India very rare. With the exception of England and Normandy, where the air is chilly and damp, the climate has, probably, little influence. Other and sufficient causes are operative.

Profession and Exercise.—Cantani states that of 168 persons affected with diabetes 132 led a sedentary life. In such, however, indulgence at the table and strain on the mind played an equal rôle with the lack of exercise in the pathogeny.

Alimentation.—Bouchardat and Cantani claim that a farinaceous and saccharine diet predetermines glycosuria. Their error lies in drawing conclusions from experiments on animals. True, an excess at the table favors glycosuria; but a poor diet has little influence, unless there be a deficiency of the albuminoids.

Drinks.—Opinions on the effect of various beverages are much divided. Harley claims that diabetes is more prevalent in England, from the large consumption of alcoholic fluids in that country. M. H. Dickinson disputes this statement. In America, where the use of spirits is frightfully prevalent, diabetes is rarely observed. Alcohol does not appear to act as an exciting cause.

Pregnancy and Lactation.—M. Blot, in a remarkable memoir, presented to the Academy of Sciences, asserts that he has found half of the pregnant women, whose urine he had examined, affected, more or less, with glycosuria, and all of forty-five women recently confined. He states that the sugar is in proportion to the activity of the mammary glands, increasing and diminishing with the secretion.

The later researches of Wiederhold, Schunk, Kirschten, Riedel, Brucke, Leconte, Ivanow, Lecoq, L. Hémeý, etc., have reached very different results. Of nine pregnant women not one had sugar in the urine. Of ninety-six women just confined twenty-three were undecisive cases, and of the remainder, thirty-six presented a quantity of sugar slightly in excess of the normal proportion, and thirty-seven below 0.6. 50 per litre, which amount would, according to

Claude Bernard and Pavy, be near the physiological standard. Both of these writers claim that a trace of sugar is to be detected in the urine of healthy persons.

Of 56 nursing women, Louvet found sugar either lacking or hardly appreciable 26 times; and in the others to oscillate between 0.650 and a little more than one gramme.

De Sinety confirms these observations of Leconte. He says that the presence of sugar is far from being a constant phenomenon with those recently confined, or with nurses. Sugar is only found when the elimination of sugar by the breasts is prevented, when the waste is not equal to the production.

Professor Gubler holds the same views as De Sinety. He also remarks that so slight a derivative as a plaster or a laxative will suffice to suppress the glycosuria.

A few cases, however, of diabetes have followed the glycosuria of pregnancy and lactation, as reported by Hufeland, Marchal (de Calvi) Bouchardat and the author. The glycosuria of pregnancy may be due to changes in the blood, the increased consumption of food, or, according to A. Ollivier, the irritation of the uterine nerves. The author thinks that the abdominal venous congestion, caused by the pressure of the uterus, is an important factor. The glycosuria of lactation may arise from the non-elimination of sugar by the breasts, or from a steatosis of the liver, a condition established as to the livers of nurses by Rauvier and de Sinety.

As to glycosuria under these conditions it cannot be said whether it consists in the elimination of glucose, or is itself a lactosuria, as the characteristics of these two urinary symptoms are as yet very vague. As to the menopause being the cause of diabetes there are no reliable data, and yet, possibly, it may have an influence.

BOOK II.—THE ELEMENTS OF ETIOLOGY IN THE ORDER OF PATHOLOGY.

The nervous system is conceded by all writers to exercise a preponderating influence in the etiology of glycosuria and diabetes.

Experimental Glycosuria.—In 1846 Claude Bernard presented the results of his experiments to the Academy of Sciences. He produced glycosuria in rabbits by puncturing the fourth ventricle at a point just above the origin of the eighth pair of nerves. Later he determined that a puncture at the middle space between the origin of the pneumogastric nerve and that of the auditory caused an increase of urine and the appearance of sugar. By a puncture a little higher, there was less urine, less sugar, but often albumen. By a puncture of the elongated marrow just below the origin of the auditory nerve, the urine was much increased, but sugar and albumen did not appear. The section of the pneumogastric nerve did not disturb these experiments. The determining influence is, therefore, as the author concludes, localized in the bulb.

Traumatic Glycosuria.—Fischer collected 35 cases of traumatic glycosuria, and to these the author could add 20 others. In most of these direct or indirect lesions of the bulb were detected. Injuries at the occiput are the most certain to pro-

diabetes glycosuria, as it is the part of the cranium in close proximity to the bulb.

Organic Lesions.—In a certain number of cases lesions of the fourth ventricle, tumors, clots, etc., cause diabetes. Of this fact Harley, Dompeling, Brugnoli, Lionville, and others offer examples.

In 12 cases of apoplexy observed by M. A. Olivier, there was a mild glycosuria. Probably, diabetes would, in such cases, be the sequel were life prolonged. As in the five autopsies the bulb was healthy, and only twice were lesions found in its vicinity, the author concludes that the glycosuria was due to the shock imparted to the brain. Pavy, Becquerel, and Marchal (de Calvi) think the brain trouble is secondary to the glycosuria. The author, however, states that, according to all known facts, the reverse is true.

Conditions of the spinal marrows exercise little influence; and yet Gourand, Becquerel, Siebert, and Kuncker furnish cases that seem to have arisen from this source.

The effect of certain nervous diseases is very decided. This has been shown as to chorea, epilepsy, hysteria, and delirium tremens, by Roberts, Andral, and Seegen. Sugar has been found in cases of paralysis, and shaking palsy, and as a rule, in acute mania and melancholia. Howship Dickinson on examining the urine of 106 lunatics, the inmates of Bethlehem Hospital, found a decided quantity of sugar in 18 cases, and a trace in 29 others. In the autopsies of 11 cases of diabetes Dickinson claims that he found lesions of the brain and spinal marrow, sufficient to have induced the disease.

It cannot be determined that the sympathetic nerves play any important rôle in glycosuria. Moral influences, however, are exceptionally potent. Camplin claims that the disease arises from this source; and to it M. Balth Foster attributes gout of 17 cases which he saw. Prout, Seegen, Pavy, Poincaré, Bernard, H. Dickinson and the author rank mental disorders as amongst the most common causes.

The Stomach.—It is an old idea, advocated by Rollo, that the malady originates in the stomach. Bonchardat adopts this theory, and maintains that the gastric juice, becoming morbid, acquires the power to convert fecula into sugar, consequently, the sugar would be formed in such abundance as to overcharge the blood, and appear in the urine. Lecoq and Hédonin think that dyspepsia induces glycosuria, and Prout says that sugar is often to be detected in the urine of dyspeptics and gouty persons. Durand-Fardel found that of 242 diabetics the digestion was normal in 168; but defective only in 44. Hence he doubts the influence of this cause. Andral found that only four in 84 cases were preceded by dyspepsia, and Cantani only 6 in 168.

The Liver.—Since the discovery of the glycogenic function of the liver, the cause of diabetes has been sought for in that organ. It is, at once, productive and regulative, producing sugar by transforming the glycogen which it secretes, and regulating the quantity entering the blood by checking the flow through the vena porta. A congestive condition of the liver in animals, caused by the puncture of needles, by electricity, by irritation of the nerve-centres, or by

other causes profoundly disturbing its circulation, plays an important role in glycosuria.

Conturier, Charvet, and Lépine have met with glycosuria in organic disease of the liver. Andral and Junker in obliteration of the vena porta, and Bouchardat in hepatic contusion. In 264 cases of diabetes given by Durand-Fardel 23 had disease of the liver. Golowin has found glycosuria in jaundice, Johnston and H. Dickinson in hepatic colic, and Seegen, Griesinger and Lecorché in enlargement of the liver. Prout thinks that the liver is always seriously implicated in diabetes.

The Pancreas.—After the discovery of the function of the pancreas it was assumed, particularly by Bouchardat, to play an important part in glycosuria. He found in two *post-mortem* examinations of diabetics this organ diseased. Cowley, Alley, Rokitanski, Hartsen, Skoda, Griesenger, Fleckes, Oppolzer, Recklinghausen, etc., mention other examples. Frerichs in nine cases of diabetes found five of atrophy. Cantani gives the pancreas a prominent rôle, and supports his views by five autopsies. The author questions the interpretation of his facts, and agrees with Frerichs in the opinion that organic disease of the pancreas may be accompanied with secondary glycosuria, and primitive glycosuria with fatty degeneration of this organ; nevertheless he thinks that one is not authorized in locating the anatomical seat of glycosuria in the pancreas.

The Lungs.—When the theory of the combustion of sugar in the lungs was prevalent, it was supposed that sugar would be found in the urine of persons having little breathing capacity. When, however, in phthisis, asthma, pertussis, or other diseases, obstructing the aëration of the blood, sugar is detected, the cause, the author is disposed to think, lies in another direction. The liver and brain are involved.

Medicines and Poisons.—Medicinal and poisonous substances may excite glycosuria. Saikowski has seen the glycogen disappear from the livers of animals when they have died of arsenical poisoning. Latham mentions the frequency of diabetes after the abuse of arsenic in the treatment from intermittent fever. He, also, relates two cases induced by a poisonous dose of this agent. The author concludes from the localization of arsenic in the liver, as is now well known, that probably a glycosuria may be thus produced.

The same is possibly true of phosphorus and mercury, but as yet the fact has not been established.

Alcohol, ether, or chloroform injected into the vena porta of animals induces glycosuria. The same result follows when in man ether or chloroform is inhaled. In twenty observations by Pavy the urine was, more or less, impregnated. Nevertheless, the author thinks that the appearance of sugar was not due to the anæsthetic directly, but rather to its impression on the nerve-centres, particularly as the same abnormal condition is produced by alcoholic intoxication.

Opium, strychnia and curare, according to the experiments of Bernard on dogs cause glycosuria.

Sydenham discovered diabetes in old cases of intermittent fever and Burdel (de Vierzon) in the acute period during the stage of reaction, especially when it was of the pernicious type. In 225 cases collected by Griesinger there are ten related to

impaludism. The soldiers, however, from Africa at Vichy rarely suffered from diabetes. This question is far from being settled. Diabetes may supervene in such subjects from the profound impression of the marsh miasm on the nutritive functions.

The Uric Diathesis.—The uric diathesis is intimately connected with diabetes. Durand-Eardel detected twenty-three cases of gravel, ten of gout, and five of gravel and gout in 270 cases of diabetes—fourteen per cent. Seegen determined about the same proportion. Marchal de Calvi supports the same pathology. Prout, Garrod, Bence Jones, Rayer, Charcot, Bernard, and others cite facts which seem to show that gout, gravel and diabetes have a common origin in the uric diathesis. The author endorses this opinion, and says that heredity has much to do in predetermining this dyscrasy.

Suppuration, Hemorrhage, Fever, Cholera.—Cases of diabetes attendant upon anthrax, hemorrhage and grave fevers are related by Philippeaux, Vulpian, Jos. Frank and Heberden. In pneumonia, erysipelas, rheumatism and acute rheumatism Gueneau and Bordier have met with glycosuria in the period of convalescence. In cholera the researches of Heintz, Samojé, Voit and Lehmann have determined the presence of sugar in the urine during the period of reaction. These researches have been confirmed by Gubler and Bordier.

Metastasis.—Metastatic diabetes, or that arising from healing an ulcer, checking perspiration, suppressing an eruption, and the like, is a possible contingency. Fruka mentions four cases which he attributes to this class of causes. Such a result is considered by the author to be within the range of possibilities.

PART II.—PROGNOSIS.

The prognosis is less grave to-day than formerly; chiefly from the fact that the disease is recognized and treated at an early stage.

Heredity.—Heritage renders the prognosis very unfavorable.

Age and Sex.—The gravity is inverse to the age. After forty the life may be prolonged; but before that period the disease is little under command. Redon mentions thirty-two cases in young children. Of these twenty-two died. Before fifteen years the mortality is at least seventy-five per cent. Sex presents little difference in youth; but, after maturity, men are more exposed to exciting causes. The statistics of Great Britain from 1850 to 1870 show that two women to one man die of diabetes; but that three men to one woman have the disease.

Temperament, Constitution, Moral Habits, Fortune.—The temperament plays no important part in diabetes. The constitution, on the other hand, as to fatness or leanness is of considerable moment. In fat persons the progress of the disease is usually slow, but in lean persons rapid. The moral powers furnish a means of resistance. A firm will enables the patient to adhere to the dietetic restrictions on which the success of treatment depends. Should the patient be incapable of systematically following fixed rules, the progress is very unfavorable. Bouchardat places his main reliance on dietetic measures.

The Form of the Disease.—Glycosuria—the simple presence of sugar in the urine should be care-

fully distinguished from diabetes—the seated malady that is wasting the tissues of the body. A greater or less amount of sugar is not the most important fact. Its importance is only relative as the glycosuria may arise from various conditions of the liver, stomach, brain, lungs, and blood. The uric form, met with in gout and gravel, is the least grave, but the gastric more so. The hepatic and cerebral are serious; but the syphilitic is less so, as it may be modified essentially by mercury. The consumptive form marches rapidly to a fatal termination.

The Period and Progress.—The stage and march of the disease must be taken into account. A new case may be arrested—the sugar even disappearing under rigid dietetic rules; but an old case, in which the sugar is formed from the azotized as well as from the starchy elements of the food, and, also, at the expense of the tissues of the body, presents slender hopes of improvement.

The Quantity of Sugar.—The prognosis cannot be based on the quantity of sugar, as this depends on such diverse causes. If due to the food used, a large amount is less significant than a much smaller proportion after the diet has been properly regulated.

Azoturia.—The quantity of azote eliminated is more important than that of sugar. It indicates more exactly the progress of disassimilation, and the intensity of the combustion going on in the organism. If the azoturia be excessive, the prognosis will be very grave.

Polyuria.—A polyuria is less serious than azoturia or glycosuria. Still an excess of urine is generally attended with an excess of its solid constituents. This profuse flow may thus carry away the particles of the tissues, and, by constant irritation of the kidneys, induce their congestion. The polyuria sometimes indicates, when intense and persistent, cerebral complications.

The Cutaneous, Digestive and Cerebral Functions.—The functions of the skin, stomach and brain are of about equal importance; but fixed disorders of the last two imply the presence of a settled disease.

Complications.—Every complication adds a new danger. Dupuytren and Thenard regard the suppression of albuminuria favorable. It is, on the contrary, serious, as the albuminuria tends to substitute itself for the original malady. The existence of cavities in the lungs, particularly in young subjects, points to a speedy and fatal issue.

The Treatment.—The chances for a successful treatment in chronic cases of diabetes in which, probably, the lungs and brain have become implicated, are slender. So, likewise, the absence of treatment, and favors the occurrence of complications, adds to the gravity of the disease. If the quantity of sugar, and the other main symptoms subside promptly under medication, a favorable prognosis will be justifiable and still more so, if small quantities of starchy and saccharine food, subsequently given, do not augment the amount of sugar in the urine.

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EDITORIAL.

ANÆSTHETIC DELUSIONS.

A respectable dentist of New York City has lately been brought before the Courts by one of his female patients, to answer her charge against him of improper intimacy, and its consequences. She avers that while she was under the influence of ether, administered by him that he might perform some needed dental operations, the dentist violated her person, she became *enciente*, and under his advice and at his request an abortion was procured.

The woman in making this charge submits herself to a great loss, an irreparable one in the eyes of the world, for however much sympathy, the world may be ready to gush forth at the mention of a woman's being wronged, it holds itself aloof from her afterwards, would not, could not think of coming into contact with her polluted person. Such is the reality, founded on fact, whether on philosophy or not is entirely immaterial at present. A woman who has known another than her husband, and confesses it, for any purpose, loses rank, and this rule is so well known to all classes, that we must say that

when a woman chooses to make such confession, as a necessary step to securing the infliction of the penalty of the law upon her betrayer, the presumption of his guilt seizes firmly upon the public. The woman loses everything, to be revenged upon the destroyer of her happiness. She might have concealed her shame, hidden herself in a strange city, and had her grief to herself, but she chooses rather, to take the unmerited, but certain public scorn, by proclaiming her weakness and his strength and fiendishness. This great fall would not be chosen, it seems, except by one who had been grievously wronged; the finger of scorn is more piercing than a dagger.

Dentists have frequently been called upon to respond to such charges, as might naturally be expected, since their business gives them opportunities not generally possessed—the administration of anæsthetics particularly favoring them. So frequently have these charges been made against them, that the better class of dentists refuse to administer chloroform or ether to a lady, save in the presence of some of her friends, thereby providing for themselves an effective defense in case suspicions do arise. This precaution should be a positive regulation in dentistry, and its violation, ensuring disgrace to the profession, should be viewed as *prima facie* evidence of evil intent, and indubitable proof of innocence only should be competent to dispel its force. There is no necessity for every dentist to be charged with rape by a female patient before the courts, because of his use of ether, in order that he may learn his peril. Some lessons had better be learned from the experience of others; falling down stairs, walking six hundred miles in six days as a pastime, and performing dental operations for women with anæsthetics, for example.

The dentist in this case, as stated by the daily papers, will be able to completely overcome the charges made by the woman, and his acquittal and exoneration are prophesied. This result, we expect, as we can account for the woman's statement, which she most probably believed to be true, upon the simple hypothesis of anæsthetic delusion, but everybody does not understand these circumstances, therefore public opinion will be divided as to the justness of the verdict; the dentist and his apologists will be suspected and scandalized by many well meaning persons.

An analogous case, *Regina vs. Howard* was tried in the Midland Circuit of Northampton Nov. 9, 1877, and five distinguished physicians testified as to chloroform delusions, which testimony added to that of fortuitous circumstances, such as the nearness of servants, unlocked doors, and the dentist's general reputation made the confessing ruined

woman appear as spotless as a lamb, whether she was willing or not. We extract from the British Medical Journal as follows :

Dr. Benjamin Richardson, F. R. S., of London, who was called for the defence, said that chloroform, laughing gas, etc., had been his special study. There were four stages or degrees in which chloroform operated. The first stages being one in which consciousness was not actually lost ; there was a little resistance, and a desire for air. The second one was a stage in which consciousness was lost, but operation was impossible ; the patient screamed often without provocation. The third stage was that of complete unconsciousness. There was no rigidity ; if the eyeballs were touched, the eye would not flinch, and in that stage the administrator would say to the surgeon : " You may go on." That was the stage for operation in a large number of cases. Judging by the description given by the prosecutrix of her own condition on the day of the alleged assault, he believed she was in the second stage. In his own experience, he had known persons in the second subject to delusions as to what had taken place while under the influence of chloroform. Dr. Richardson gave a number of instances which had come under his observation ; and stated that those delusions were the subject of some of the earliest objections to chloroform. He mentioned the case of a lady who, in the presence of himself, her father and her mother, and a dentist's assistant, while under the influence of chloroform, brought a charge against the dentist who was operating upon her precisely similar to the one in the present case, and continued firm in the belief that the charge was well founded long after the influence of the chloroform had passed off, and probably still continued in that belief.

Mr. Mills said that patients under chloroform were frequently subject to delusions ; and, in the case of the fair sex, the delusions sometimes assumed quite a scandalous form.

Other medical witnesses were called, who expressed their concurrence in Dr. Richardson's evidence : viz., Dr. Hawksley (London), Dr. Saundby (Birmingham), and Mr. J. F. West (Birmingham). It was stated that all the medical witnesses for the defence had come forward to give their evidence entirely gratuitously.

After this evidence, his Lordship asked the jury whether it was necessary for him to sum up.—The Foreman replied that the jury had already agreed upon a verdict of acquittal.

We do not censure the women for bringing these charges, rather we honor her who esteems virtue higher than praise. Their intentions are the noblest, and though a careless dentist, by his neglect, may ruin her happiness, and an unthinking public may turn from her, she dared to protect herself, and tries to prove her virtuous desire.

A constant thought in all true women is centered upon protecting their purity, and passive impressions of former days as to the wrongs that might be done to her when rendered unconscious by ether or chloroform come into the mind temporarily de-

prived of its food, while the senses are inactive. The law of association would suggest that such images would occupy her thoughts then. Awakening to consciousness, the dream of the unconscious moments seem to have been a reality ; the ether, the man, and opportunity are present yet ; the rest, it seems to her, must have been as real also. She believes what she asserts, therefore must not be blamed. Let the blame of lack of caution rest upon the thoughtless dentist, though he is not guilty of other crime.

ABOUT BOOKS.

Exercises and Training, by C. H. Royle, M. D. D. Appleton & Co., New York, 1879.

This is the first volume of the Health Primers, and is deserving of special commendation. The first chapter is devoted to a careful yet concise discussion of anatomical principles which need to be understood before exercise or training is commenced. These principles are so plainly worded that they will be easily comprehended by an intelligent reader, whatever may have been his previous study of anatomy. Much more could have been said by the author upon the subject, and with benefit to the general reader, judging from the ability displayed in that which he has given us, but the primer design was kept well in view, and the small book well written will find more readers, therefore do greater good than a larger volume, even though as well executed.

The following chapter on exercise is the weak point in the book. Our English author, true to his country, aspires to training and professional athletics, therefore was anxious to enter into those pleasant themes, which caused him to leave much unsaid in regard to exercise for boys and girls that should have found place in a good health primer. The want of to-day is a scientific yet popular treatise discussing exercises for growing children, scientific so as to be sensible, and popular so that the general reader will not be compelled to buy a scientific dictionary in order to extract the points. What this book says of exercises is of the best order, is clearly expressed, and this makes us regret the more that the author found it convenient to devote so little space to it.

The third chapter gives the directions for developing Rowells, Hazae's, Corkeys, "Blower" Browns, Renforth's, Elliotts, and as their commercial importance is measured by the tens of thousands of dollars for each week, at the present time, which will tempt flocks to enter into training for walking, running, and rowing, we are sure this chapter will not be slighted.

Contrasted with the miserable and many Hand-Books of Calisthenics, Gymnastics, Manuals, etc., etc., by distinguished professors (?) of gymnastics, this book is a treasure.

SELECTIONS FROM JOURNALS.

ORIGIN OF THE STETHOSCOPE.

One day as he [Laënnec] was crossing the court of the Louvre, he observed some children who, with ears applied to the two extremities of a long beam, were transmitting reciprocally the light sound provoked by the stroke of the finger against the opposite end. In the intermediate space no sound was perceptible. The careful observer reflected, and soon, like Archimedes, he was able to exclaim, "*I have found it.*"

Some time afterward, in fact it was in 1816, being consulted for a young woman who presented general symptoms of heart disease, in which percussion gave small results on account of the stoutness of the subject, the age and sex of the patient forbidding his listening directly with the ear, he remembered the children of the court of the Louvre. Immediately he took a paper copy-book, of which he made a roll closely pressed together, placed one end of it upon the chest of the young woman applied the other to his ear, and found with pleasure that in that manner he could perceive much more clearly the beats of the heart. So a play of children and regard for modesty were two facts which led to the discovery of mediate auscultation.

Laënnec then modified this roll of paper, giving it more firmness, limiting its length to a foot, its diameter to sixteen lines—smoothing the two extremities with a file. Then he made other experiments: He constructed a tubular cylinder of gold-beater's skin, which he filled with air by means of a spout, and of which the central opening was maintained by means of a support of pasteboard; he made an experiment with glass and with metals; finally he stopped with a cylinder of light wood, pierced in its centre with a tube, expanded at the extremity in the form of a funnel. We have seen in our youth the original stethoscope of Laënnec. In truth, it had a size altogether useless and well adapted to terrify patients.—*A. Chereau, in Arch. Gen. de Med.—St. Louis Courier of Med.*

ATTEMPTED MURDER: EROTOMANIA:
IMPULSIVE HOMICIDAL MANIA.

M. Motet lately communicated to the Medico-Legal Society of Paris the following case, which presents some points of interest in reference to homicidal mania and erotomania. A glazier, named Douaille, aged 49, much given to drinking alcoholic liquids, suddenly, and without any apparent cause, inflicted stabs with a knife on a fellow-workman, and then attempted suicide. On inquiring into the condition of the assailant, it was found that for two years before the perpetration of this act Douaille had become inattentive and had fallen off in his work. At the same time, he gave way to habits of drinking to such a degree that, after these excesses, he frequently had epileptic fits. It was further ascertained that he had manifested an unnatural passion for the man whom he had stabbed, and had an irresistible desire to sleep with him. In order to satisfy this disgraceful passion, he secretly entered the man's bedroom, and being there surprised by

his companion, and fearing that he might be mistaken for a robber, he threw himself on him and inflicted the stabs above described. The question arose whether Douaille was really in a state of mind to be conscious of his acts and responsible for the attempt at murder. M. Motet drew up a report for the Court of Assizes, contending, on the following grounds, that Douaille should not be held legally responsible. Unlike most pederasts, Douaille had selected for his criminal passion an old man, a man indeed older than himself, the age of the person attacked being sixty-four. Pederasts, as a rule, select young persons. In this abnormal fact, M. Motet considers that there was strong evidence of diseased cerebral excitement such as might occur in a man who had given way to excess in drinking alcoholic liquids. Considering also that Douaille had had four epileptic attacks in one year, that he had attempted suicide by charcoal fumes in 1877, and that on the day before the crime he was in a dull and stupid condition, M. Motet came to the conclusion that there was evidence of mental disease sufficient to render the man irresponsible for the crime. He regarded Douaille, in fact, as an alcoholic maniac laboring under an uncontrollable bestial passion with a sudden impulse to murder. Upon this evidence, Douaille was acquitted on the grounds of insanity, and sentenced to be confined in an asylum. The case is, no doubt, one of considerable difficulty. Here was a man laboring under two distinct criminal impulses at the same time—the impulse leading to unnatural intercourse, and the impulse leading to murder; but the later may receive another interpretation. It is not unreasonable to suppose that the real motive for the stabbing may have been that he was resisted in the attempts to carry out his criminal passion. The change of character and habits observed in Douaille before he assaulted his companion was some evidence in favor of insanity. The result shows that the rule of criminal responsibility in France does not err on the side of severity.—*Brit. Med. Journal.*

SEATS FOR SHOPWOMEN.

Dr. Edis has ably drawn attention in this country to the injury inflicted on shopwomen by being compelled to stand during the hours of business; and a considerable amount of reform has, we believe, been the effect of his representations. We are glad to see that one of our most able contemporaries, the *Philadelphia Medical Times*, has taken up the matter on behalf of persons of the same class in America. "The young women," it says, "who are found behind the counters in the ordinary retail stores are expected to dress neatly on a minimum of salary, to be on duty from eight o'clock or earlier in the morning until six or later at night, with an interval for rest and dinner of half-an-hour (or, rarely an hour) at midday, and during all this time, must be constantly on the alert, ready to please the capricious taste of the buyer (*bona fide* or pretended), constantly moving, and, in the busy season, without a moment's rest, perhaps, from morning to night. With a refinement of—we will not say cruelty, but—severity, these shop-girls are frequently—in fact, we may say generally—forbidden, under any cir-

cumstances, to seat themselves or take any rest during the hours of labor. Nor is there any change in this rule for the varying conditions of the system. As the periodical return of languor, and perhaps pain, intimates the call of system for some rest, some mitigation of the usual labor, the wear and tear of this constant standing position becomes almost beyond endurance. Uterine disease is induced when there is the least tendency to it, and aggravated to a high degree when it exists; and many a young woman leaves the duties of the shop to take up those of maternity with the seeds of future disease implanted, and needing only the added stimulus of child-bearing and lactation to break out and give rise to chronic invalidism." Our contemporary considers that it would be too much to expect of human nature that this injustice should be spontaneously remedied by the heads of the establishments; and suggests that no one is more fit to point out the necessity of a change in the direction of more humane treatment than the physician, who may be the adviser at once of the proprietor and of the saleswomen. He remarks that in London and some of the larger towns associations have been formed for the amelioration of the condition of shop-girls, and already much good has been done in this way.—*Brit. Med. Jour.*

AN ALMOND-SHELL IN A BRONCHUS.

The following curious case is published in No. 54 of the *Allgemeine Med. Central-Zeitung*, 1879. A servant-girl, aged 19, swallowed one evening a piece of an almond-shell. She began to cough immediately after the accident. The cough lasted through the night, and was accompanied by vomiting, dyspnoea, and severe pain in the throat. The pain gradually extended over the right half of the thorax, and the patient expectorated a very offensive bloody sputum. When she presented herself at the hospital three weeks later, slight dulness was found on the right side of her back, extending from the middle of the scapula downwards; the breath-sound was feeble and vesicular on the back; sonorous rhonchi were heard in front on the right side and in the right interscapular space. She complained of pain in front in the upper part of the thorax when coughing. There was no fever. Five days later, pleuropneumonia of the right side broke out, which was only definitely cured after two months and a half, when the patient left the hospital feeling well, with the exception of the above-mentioned sensation of pain when coughing. The sonorous rhonchi could still be heard. Three weeks later, she again felt very unwell, and re-entered the hospital. A few days afterwards, during a violent fit of coughing, she coughed up a piece of a rough almond-shell with ragged borders. It measured nearly nine-tenths of an inch in length, more than six-tenths of an inch in breadth, and was one-third of an inch thick. The patient recovered rapidly. It is remarkable that a foreign body of such a size could be aspirated into the bronchi, and that no more injury was caused by its roughness and ragged edges.—*Brit. Med. Jour.*

OPIUM AND ITS EFFECTS.

Official reports state that the consumption of opium in Burmah has of late years increased largely, especially in the Arakan division. The evils arising from this vice manifest themselves in a very marked fashion in the prisons, to which the devotees of the drug are brought in great numbers. When rice becomes scarce and dear, as it did in 1877, the opium-eater is unable to procure his usual quantity of opium, and, as a consequence, he falls into a bad state of health. The prisoners committed to the Akyab Jail in 1877 are stated to have been, without exception, opium-eaters to excess, who, when deprived of the drug, are quite unfit for work, and, as a means of living, resort to theft. When they become inmates of a jail, they are strongly predisposed to be attacked by such diseases as diarrhoea, dysentery, and anæmia. Of these three diseases, thirty-three prisoners died in Akyab Jail during 1877, in addition to forty-five from cholera; and this whilst the sanitary state of the jail was excellent, and only three prisoners died from other diseases. Writing on this subject, the civil surgeon of Arakan says that the use of opium, both in smoking and eating, has been the cause of a great deal of sickness and mortality in the jail, most of the cases dying from intractable forms of bowel complaints. "Even though the patients were regularly supplied with large quantities of opium, many were suffering severely from it before their arrival. A few days' deprivation is often sufficient to make them enter the downward path, and it is too often the case that when once they have entered that path no amount will re-establish their health. Very frequently, in bringing these men from the district, they occupy several days' on their journey, during which they get no opium, and the evil effects soon become apparent. Another evil is that, when put to jail on hard labor, they soon break down. No doubt many would recover provided you revoke confinement and hard labor, and supply them with a reasonable quantity of opium; otherwise, in my experience, the result is that they break down, fall into a wretched state of debility, and finally succumb to dysentery or diarrhoea. It seems to me that during the year opium-eating has been a fertile source of crime."—*Brit. Med. Jour.*

NEWS ITEMS AND NOTES.

Dr. Frank H. Hamilton, Surgical Clinics, Bellevue Hospital.—Dr. Frank H. Hamilton's Surgical Clinics, will commence at Bellevue Hospital, on Wednesday, Nov. 5th, at 2.30 P.M., and continue eight weeks, same day and hour each week. They are open to medical men, and to the students of all the colleges. The first clinic will be devoted to a study of one hundred and twenty or more cases of fracture of the patella. A large number of examples will be brought before the class, by way of illustrating the proper mode of treatment, and the usual results.

Bellevue Hospital.—This institution has recently sustained a loss in the death of Dr. Seth W. Williams, of Nashua, New Hampshire, senior assistant on the third medical division. He was apparently in his usual health, and had gone to the country for recreation, when he suddenly began to develop brain symptoms, and, after a brief illness, died. The post-mortem examination showed that death was caused by iodopathic abscess of the right lobe of the cerebellum. Dr. Wil-

liams was the winner of the Sayre prize for the best essay on Pott's disease of the spine, last year.

CHANGES IN THE REQUIREMENTS FOR GRADUATION, &C., AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE, TO GO INTO OPERATION FOR AND AFTER THE SESSION OF 1880-81 (Adopted September 8th, 1879.)

Resolved.—That, after the regular session of 1879-80, the plan of instruction at the BELLEVUE HOSPITAL MEDICAL COLLEGE be so modified as to apportion to each one of three sessions, certain divisions of the study of medicine, with final examinations in elementary branches at the end of the first and of the second session; the examinations for graduation at the end of the third session being confined to the branches of Practice of Medicine, Surgery, and Obstetrics; the plan to embrace requirements as regards practical instruction in Chemistry, Histology, Operative Surgery, and Clinical Medicine, together with systematic recitations in all the branches.

In adopting this plan, the number of Hospital lectures is not to be diminished, and the union of clinical with didactic teaching is to continue, as heretofore, to be a leading principle in the practical departments.

Resolved.—That matriculants who expect to become candidates for graduation after the close of the session of 1879-80 will be required to furnish, by examination or otherwise, satisfactory evidence of a preliminary education deemed sufficient for entering upon the study of Medicine.

On September 8, 1879, the following plan was adopted by the Faculty, subject, however, to modifications in its details, should any changes appear advisable before it actually goes into operation.

MATRICULATION EXAMINATION.

The matriculation examination will consist of English composition (one foolscap page of original composition upon any subject, in the handwriting of the candidate); Grammar, an examination upon the above-mentioned composition; Arithmetic, including vulgar and decimal fractions; Algebra, including simple equations; Geometry, first two books of Euclid.

The matriculation examination by the Faculty will be waived for those who have received the degree of A.B., those who passed the freshman examination for entrance into any incorporated literary college, those who present certificates of proficiency in the subjects of the matriculation examination from the principal or teachers of any reputable high-school, those who have passed a matriculation examination at any recognized medical college or at any scientific school or academy in which an examination is required for admission, and those who present certificates of having passed the matriculation examination from certain examiners appointed by the Faculty of the BELLEVUE HOSPITAL MEDICAL COLLEGE.

EXAMINATIONS FOR STUDENTS WHO TAKE THE FULL COURSE OF THREE YEARS.

First Year.—Physics and Inorganic Chemistry; Descriptive Anatomy; Materia Medica. *Second Year.*—Organic and Physiological Chemistry; General and Surgical Anatomy; Physiology; Therapeutics. *Third Year.*—Practice of Medicine; Surgery; Obstetrics and diseases of Women and Children. Before the final examinations for the third year, candidates must present certificates from recognized teachers of one course of instruction in each of the following-named practical studies; viz., Dissections, Practical Chemistry, and a Practical Course of Physiological and Pathological Histology. No graduating thesis is required.

Candidates who fail in one only of the branches for examination for the first or the second year will be permitted to pass on to the studies of the succeeding year and to make up the branch upon which they failed in their previous examination. Candidates who fail in more than one branch in the examinations for the first or the second year will be put back one year, but they will not be required to pay more than the regular fees for the three years.

Graduates of other recognized medical colleges, and students who have attended two full courses of lectures at other recognized medical colleges, or two full years at other recognized medical colleges that have a compulsory graded course will be admitted to the third year without a matriculation examination; but all such as are candidates for graduation will be required to pass a full examination upon all the branches

examined upon for the three years at the close of the session, and all, including graduates of other medical colleges, irrespective of the date of their graduation, will be required to pay the fee for the third year, which is \$100.

Students who have attended one full course or the first year of a compulsory grade course at other recognized medical colleges will be admitted to the second year; but all such will be required to submit to the conditions of the matriculation examination, and to pass, at the end of the session, an examination upon the branches examined upon for the first and second years.

Partial or incomplete courses at other recognized medical colleges will be reckoned as time of study, but will not be counted as entitling students to enter for the second or the third year or be considered in reduction of fees, except that two partial courses at other recognized medical colleges, which together are equivalent to one full course, will be recognized as a full course of lectures.

Certificates of three years' study after eighteen years of age, from a regular physician, in good standing, in accordance with one of the provisions of the charter of the College, will be required, and candidates for graduation must have reached the age of twenty-one years.

All the examinations will take place at the close of the Winter session only, except in the case of the final examinations for those whose three years' term of study does not expire until the Fall. For such candidates, final examinations will be held in October.

There will be no "preliminary term," and the regular winter session will be extended to six months, beginning about the middle of September and ending about the middle of March. The spring recitation class will be continued as an optional course.

Three courses of lectures are required for graduation. Students are expected to attend all the lectures, including clinics, for the first two years. During the third year, students are expected to attend all the clinics, but they may confine their attendance upon the didactic lectures to the branches upon which they are to pass their final examinations, thus having time for practical work in the dissecting room, the chemical laboratory, and the pathological laboratory, and for practical clinical exercises in medicine, Surgery and Obstetrics. Students are expected to attend the regular weekly recitations held by members of the faculty during each session upon the branches upon which they are to be examined at the close of the session.

For students who attend the full course of instruction at the college for three years, the regular examinations at the close of each of the three sessions are obligatory.

Graduates of other recognized medical colleges, of three or more years' standing, will not be admitted to their final examination for the degree, unless they present a certificate of membership of some medical society entitled to representation in the American Medical Association.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE HOSPITAL GAZETTE, are favorably impressed with the interest and value of the publication. We therefore take it as a favor to the Editor, to send a copy of this number to all who favor us by so doing, will certainly continue their subscriptions hereafter. All we ask is a trial.

LECTURES.

CLINICAL LECTURE ON CARBUNCLE:
ONYCHIA: FALSE ANCHYLOSIS.

J. WILLISTON WRIGHT, M. D.,

Professor of Surgery, Medical Department of the University of the city
of New York.

Reported for THE HOSPITAL GAZETTE.

GENTLEMEN:—The first patient I show you to-day is a man of 50 years of age, whose general appearance would seem to indicate that he is suffering from some grave disorder. On looking at his face you will notice that his skin is pale and sallow; his tongue is coated, and he moves about in a way which is suggestive of extreme weakness.

He says that he came here on account of a sore on the back of his neck, which has been there for two or three weeks. On examining the "sore" we find that it consists of a moderate elevation of the surface, covering a space of about two inches in diameter; that a large opening exists in its centre, with several smaller ones in its vicinity, and that the bottom of the main opening contains a mass of dead tissue or slough. The parts surrounding the opening are of a livid color, hard and tender to the touch. This is what is called a carbuncle, a disease which consists essentially in an unhealthy, more or less circumscribed, inflammation of the subcutaneous areolar tissue, rapidly running into suppuration and slough, and which differs materially from a common boil in its greater size, its darker color, its broad flat character, and especially in the amount of areolar tissue and skin involved.

Sometimes the disease arises without any assignable cause, but more often is the result of the introduction of some poison into a slight crack or puncture of the skin; or is connected with some disordered or low state of the system. Hence we frequently see it in persons who are just recovering from a low fever, or in those who have been subjected for a long time to special vicissitudes, such as deprivation of wholesome food, water and air; exposure from shipwreck, &c. Its favorite locality is the back or the nape of the neck; yet I have often seen it on back of the hands and fingers and on the scalp. Sometimes it appears on the face, and is in this locality often mistaken for malignant pustule.

The prognosis depends upon the size and locality of the disease, the age and general constitution of the patient. Thus a very large carbuncle situated on the scalp of a feeble old man would be far more serious, other things being equal, than a smaller one on the neck of a younger and stronger individual.

The treatment will be local and constitutional. In the very incipency of the disorder its progress

may sometimes be arrested by one or two free applications of tincture of iodine, or by opening the vesicle, which early forms at the apex of the swelling, and cauterizing its interior with nitrate of silver or, what is perhaps better, caustic potash.

Later along, when suppuration is inevitable and the pain and tension great, poultices will be required. These should be made of ground flaxseed, sprinkled with powdered opium or impregnated with laudanum, applied hot and covered with oiled silk in order to maintain the heat and prevent evaporation. Finally, when the skin shows a disposition to ulcerate at several points, the carbuncle should be opened either by the knife or by the use of caustic. By the former method, which I very much prefer—as being more speedily accomplished and more effectual in its results—a crucial incision is generally made across the whole diameter of the swelling, and extending entirely through the skin and areolar tissue. This liberates the parts and gives the slough an opportunity to escape.

Sometimes when this latter process is going on slowly, we can hasten it by making the poultices more stimulating, adding to them boiled carrot, for instance, and washing out the cavity once or twice daily with a slightly stimulating lotion, such as carbolic acid and water, 3j to oj. In cases where the slough is peculiarly obstinate in separating, I often trim it out with scissors and dressing forceps, and always find that after doing so granulations spring up at once and soon fill the cavity. The method of opening carbuncles with caustics has become very fashionable of late, but I should be inclined to reserve it for patients who were so debilitated as to make even the smallest abstraction of blood a matter of danger.

The constitutional measures are, perhaps, of more importance even than such as are purely local—since nearly all of these patients are, if not exactly run down, as we say, at least below the standard of health, as is shown by the fact that the fever which accompanies the disease, during its progressive stages, is almost always of the asthenic type.

Quinine, iron, milk, eggs, beef tea, cod liver oil, with the addition of milk punch, ale or porter, together with pure air, are the remedies upon which most reliance must be placed—by each and all of which I am sure this poor man would be greatly improved and probably cured in a short time. His carbuncle, as you see, has already had a free opening made into it with a knife, but the slough has not yet come away. A little more poulticing with the carrot and flaxseed will, I hope, relieve him of that, when the local mischief will speedily repair itself under the use of tonics, good nourishment, etc.

ONYCHIA.

CASE II.—The next patient is a pale-looking boy of ten or twelve years, who comes here on account of some trouble with the nail of the little finger of his left hand, and his mother informs us that for several weeks he has suffered intensely with it night and day.

The first thing which catches the eye as you examine the part is the peculiar shape and appearance of the end of the finger; it is swollen, club-shaped and of a livid color. It is painful at all

times, extremely sensitive and tender to the touch. As you look a little more closely you will observe that the nail is of a dark color, and that it is half buried in the unhealthy tissues around its margins, while badly-smelling pus is welling up from the matrix on each side. Bathed in this pus also you will notice a number of large, unhealthy, flabby looking granulations.

The case is one of onychia, of which there are practically two varieties, viz., the simple and the specific.

The former results most frequently from such slight injuries as the prick of a pin, tearing down a hang-nail, running a splinter under the nail, ingrowing of the nail itself; occurring in an individual who is not up to the standard of health at the time of receiving the injury.

The latter is usually in consequence of the poison of syphilis or of a poisoned wound. In both there is an unhealthy inflammation going on in the matrix of the nail. If you will take the trouble to dissect out a finger or toe nail from the dead body some time, you will find that the root does not run squarely across the back of the phalanx, but that on the contrary it is shaped like a fish's tail, with the lateral portions embedded much more deeply than the centre; the practical bearing of which is, that unless you remember it in removing these diseased nails a portion is apt to be left behind and act like any other foreign body to keep the inflammation alive.

In slight cases of simple onychia, a mild aperient internally, with soothing and astringent lotions applied locally may suffice; but when the whole matrix is involved—the nail itself necrosed—and granulations, bathed in fetid pus, are springing up at sides, then the whole nail should be removed.

The method usually employed for this purpose consists in running the sharp point of a scissors' blade underneath the centre of the nail as far as its root—dividing it along the middle—and then violently tearing out each half with a strong pair of forceps.

Now, aside from the terrible pain which such an operation involves, I believe that serious injury is always done to the matrix, and that the character of the new nail is very materially modified thereby, so that it is likely to be thick, irregular and clubbed in consequence.

To avoid this, I have used for the last ten years the instrument I show you, which consists of a small flat spade, having a rounded, instead of a cutting, edge. By sweeping this blade along under the nail, keeping close to it, the matrix is readily separated, often with scarcely any hemorrhage and but trifling pain. The outside attachments are loosened in like manner, being careful to go deeply enough to reach the root of the nail on both sides and below, when the offending substance can be quietly taken away with the fingers or dressing forceps.

The after treatment, in a case of simple onychia like this, will consist in destroying the fungous granulations, with nitrate of silver, or, what is better cutting them off; followed by water dressing. And, if the ulcer does not take on a healthy appearance

in a few days, treating it with the "Black wash" of the pharmacopœia.

In the specific form of onychia, constitutional remedies, suited to the nature of the disease inducing it will, of course, be called for, in addition to local measures, such as I have described.

This leads me to say something of that very common and troublesome affection known as "ingrowing toe nail." A patient will come to you with this condition and on examining the nail, usually that of the great toe, you will find that one corner of it is buried in the flesh, and that it cannot be brought into view. The end of the toe will be red, swollen, painful and excessively tender; pus, of a very fetid character, will be discharging from the affected side, as in this case of onychia, and you will probably find also, if the case is one of long standing, the same form of fungous granulations which I have just mentioned.

The cause of all this suffering will generally be found either in a badly fitting shoe, which has compressed the toes, or in the fact that when the nail has been cut one corner has been rounded off below the extremity of the cleft in which it is placed. As a result, when the nail grows again this corner advances into the flesh rather than beyond it as nature intended; the soft parts immediately become irritated, as they would if a thorn or any other hard foreign substance were placed there. This condition once established, the subsequent growth of the nail constantly augments the mischief by pushing a sharp spike of dead nail farther and farther into the tissues.

To expose and remove the offending corner gives only a temporary relief, for the nail continuing to grow, it requires but a few weeks to reproduce the old difficulty. The whole of that side of the nail, therefore, should be detached with the instrument just shown you, split with the scissors and removed bodily, including its root. Care should then be taken to train the new portion of nail, as it grows, in such a way as to keep its free extremity a little beyond the end of the toe.

In some of these cases the tendency to recurrence is very marked, and it was for this reason that Maisonneuve proposed the operation of cutting away, at the same time that the nail was removed, a portion of the enlarged and indurated border of the toe, adjoining the matrix. This operation I have resorted to several times, but, thus far, it has disappointed my expectations.

In a few cases all of these means will fail, and the tendency to recurrence be so decided that amputation of the distal phalanx will be imperatively demanded.

FALSE ANCHYLOSIS OF THE SHOULDER JOINT.

CASE III.—James G., 50 years old. Three months ago he fell backwards from a chair, striking the back of the shoulder blade on the floor. On getting up he found himself unable to raise the right arm from the side, although apparently not otherwise injured. Since that time the shoulder has become more and more stiff, somewhat painful, and generally less useful. If I ask him to raise the arm you see that he bends his spine and his whole body towards the opposite side, but the elbow does not leave the ribs except to a very limited extent.

An examination of the parts shows us that the head of the humerus is somewhat more prominent than that of the opposite side; that it seems nearer to the coracoid process of the scapula, and somewhat below its natural level; while the space underneath the acromion, examined from behind, seems considerably larger than normal.

A dislocation, partial or complete, of course suggests itself to your minds. But you see I can rotate the arm freely, and the patient can put his hand over on the other shoulder; in fact, all of the usual movements of the joint are free enough except the ability to raise the arm to the level of and above the shoulder.

On rotating the arm forcibly outward however, I feel a grating or squeaking sensation under my hand; not like the rough grating of broken bone, but like what we should expect to occur where two cartilaginous surfaces had become roughened by

With the patient now fully under the effect of ether, I made moderate extension on the arm, accompanying the traction with rotation, while an assistant pushes the head of the humerus towards the glenoid cavity; presently there is a feeling conveyed to my hands of something having given away, and the head of the bone is in its natural position, but so soon as the traction is removed it returns to its previous locality.

I now carry the arm upwards, forcibly moving it about in all directions, and as I do so, appreciate distinctly the breaking of numerous fibrous bands in the joint. The case is interesting in several particulars. First, did the patient originally have a luxation? I think not, since the history does not point to any train of symptoms such as usually attend this accident. Secondly, he has had no surgical treatment since the injury was received; there is no history, in other words, of a dislocation having been reduced. Thirdly, there are now existing none of the symptoms which characterize that condition. What then, you ask me, has occurred? I think the true explanation of the case is to be found by referring for a moment to the anatomy of the parts. To this prominence, which is called the greater tuberosity of the humerus, you will remember, are attached three muscles, viz., the supraspinatus, the infra-spinatus, and the teres minor, one of the actions of the first being to assist the deltoid in raising the arm. If the tendon of this muscle is ruptured or torn away from the bone, inability to raise the arm may be one of the symptoms, especially if, as so frequently happens in falls upon the shoulder, the deltoid is at the same time paralysed, from injury to the circumflex nerve. If on the other hand the whole tuberosity is broken off so that the bone is released from the action of all of these three muscles, then it will be drawn downward, forward and inward, as we see it here by the action of the teres major, the pectoralis major and the latissimus dorsi. One of these two accidents, most probably the latter, I believe to have occurred here, not from the force of the blow, understand me, but from muscular action alone; as a result of that, we have had a synovitis of the joint, which has led to a partial ankylosis, attributable largely to disease of the arm, and that the case has been complicated by

injury of the nerve supplying the deltoid, with consequent paralysis of that muscle.

Perhaps I ought to explain what I mean by false or fibrous ankylosis.

The term is used to distinguish the condition under consideration from the true, or bony ankylosis, and is caused: 1st by synovitis leading to the formation of fibrous bands about the joint; or to a deposit of fibro-cellular material between the articular surfaces of the two bones, taking the place of the original cartilage which has been destroyed or changed by the inflammatory action; 3rd by thickening and shortening of the capsular ligament; 4th by shortening of the ligaments or tendons on the side of flexion of the joint.

The treatment which I shall prescribe in this case will consist in passive motion thoroughly carried out, showering daily with warm salt and water followed by friction with stimulating liniments, and perhaps later on by the use of electricity.

ORIGINAL ARTICLES.

GESOPHAGISMUS.

A TYPICAL CASE OF TRUE SPASMODIC STRICTURE OF THE GESOPHAGUS RESEMBLING ORGANIC STRICTURE, COMPLETELY CURED BY THE PASSAGE OF A FULE-SIZED GESOPHAGEAL SOUND.

WITH REMARKS ON THE SUBJECT.

BY

J. J. HENNA, M.D.

Surgeon to the Out-Patient Department of Bellevue Hospital, N. Y., etc

Mr. Valentine Ferro, *æt.* 71, a native of Bogota, S. A., and a cultured and intelligent gentleman. A man of good constitution and well preserved for his age. He enjoyed excellent health in his youth, and has always been of active disposition, being extremely fond of athletic sports, such as riding, hunting, etc. Has always praised himself for having a powerful stomach, being able to relish and digest almost anything. Has been of temperate habits, and never has used alcoholic drinks or tobacco to excess, his limit being a little claret wine at dinner and occasionally a cigar.

When about thirty years of age he began to suffer slightly from neuralgia, chiefly in the sciatic nerve, which, in spite of the efforts of his physicians and repeated changes of climate, has continued more or less to annoy him ever since. About thirty-two years ago he had yellow fever in Havana, from which he recovered without sequelæ and regained his normal health. This he continued to enjoy until a few months after, when he was attacked with cholera Asiatica in Port au Prince. He recovered without accident and was soon restored to his normal condition.

About twelve years ago, while taking a cold bath in a brook, he felt suddenly chilled, upon which he hastened home as quickly as possible. The chill having subsided, he sat down to his breakfast, but when he attempted to swallow a mouthful, he suddenly felt, to his surprise, an acute pain (lancin-

ating as he described it) just under the ensiform cartilage, and inability to get the food into the stomach, but by successive efforts of swallowing, and after copious draughts of ice water, the pain ceased, and the food at last succeeded in reaching its destination. He was then able to continue with his meal, as if nothing had happened. He has since suffered from similar attacks at intervals of from three months to a year, these always being excited by attempting to swallow anything irritant, such as a piece of pickle or a little lemon. The difficulty never lasted more than a few moments, always yielding to a draught of ice water, a mouthful of ice cream, or a cold mucilaginous drink. Once only did it last longer than this, when in spite of all the measures that were adopted for its relief, it persisted for three days. During this attack, opiates administered both by the mouth and subcutaneously failed to produce any effect, when suddenly, when least expected, he belched up considerable gas, and found himself relieved, being able to swallow as well as before.

On May 24th 1879, I was called to see him, when I obtained the following history. On the 20th inst., that is five days before I saw the patient, in the morning while at breakfast, on attempting to swallow he found that the food stopped at a certain point without reaching the stomach; just previously he had taken an electric bath on the advice of his physician, who was at the time treating him for neuralgic pains in the arm. Every time he attempted to take anything into the stomach, he was seized with an acute pain in the region under the ensiform cartilage, and felt that the food lodged at that point, when in a few moments he would feel a sense of suffocation. Then by simply bending his body forward the food would regurgitate without effort, and he was relieved of both the pain and the dyspnoea. Several physicians, both homeopathic and regular, had been summoned to his aid, and various diagnoses made, but no relief had been afforded, and the patient in spite of his active sensations of hunger was exhibiting symptoms of starvation, and it was evident that his stomach had received no nourishment. In this condition I found him, when after having gathered the preceding facts, I at once proceeded to make a careful physical examination.

Looking at the throat, I found nothing that would indicate any trouble in the pharynx, and presenting him with a glass of water he seemed to swallow it normally but said that he felt it stop at a certain point, placing his finger just to the left of the sternum, and slightly above the ensiform cartilage. On percussion over the stomach I found it still empty. As he had spoken to me of the facility with which he could bring up whatever he swallowed, I desired to verify the statement, and so requested him to perform the act in my presence. By simply bending the body forward, and without any apparent effort, about the same amount of water that he had previously swallowed was returned. Inspecting this carefully, I found no evidences that would lead me to believe that it had been in the stomach. But wishing to be more certain I repeated the experiment, and as he swallowed placed my ear over the stomach, but could not detect the characteristic gurgling produced by a quantity of fluid entering

that viscus. Milk given in the same way was returned in a like manner, after having been retained for about an hour. A careful examination of it, showed that it had undergone no change whatever during its sojourn, which proved conclusively that it had never reached the stomach, for had it done so, some digestion must necessarily have occurred, as sufficient time had elapsed. The caseine was uncoagulated and the reaction was still alkaline.

It was therefore evident that there was some obstruction at the cardiac orifice, the nature of which was as yet unknown. A careful physical examination gave entirely negative evidence of aneurism or other tumor in the neighborhood. There was likewise no history of traumatic stricture from poisoning or previous disease. The only possibilities, therefore, were that we had to deal with either an organic stricture from chronic fibrous induration of the œsophageal walls, or with a *spasmodic contraction*. The history of his previous attacks, though they had lasted for a much shorter period, and the absence of progressive inability to swallow, led me to accept the latter condition as the true one.

As I had been called in simply to give my opinion of the case, after expressing my belief that it was a spasmodic stricture of the œsophagus, (*asophagismus*) I took my departure.

The following morning I was requested to take the entire charge of the case. As before stated, I believed the difficulty to be a spasmodic contraction of the œsophagus, and as a means of *treatment* I suggested the use of an œsophageal bougie, with the expectation that its mere presence at the seat of the obstruction would cause the contracted muscles to relax and allow of the free passage of the instrument. I based this view on the fact that, as in a case of *urethrismus*, where even the passage of a filiform bougie is resisted, the spasm will yield to the presence of an instrument of very much larger size, so in the present instance, if the diagnosis were correct, the obstruction would be quickly overcome. It was necessary for the patient to be relieved with as much speed as possible, as he was showing signs of rapid exhaustion, and the secretion of urine was becoming exceedingly scanty. I did not wish to rely on the tardy, uncertain effects of medicine. My suggestion of the bougie was not, however, acceptable to the patient or his friends, and they would not consent to the procedure.

Not wishing to assume the entire responsibility under the existing circumstances, I advised a consultation, and Prof. Alonzo Clark, of this city, met me during the evening. In the meantime, I had ordered rectal injections of defibrinated blood to nourish him. Dr. Clark, on examining the patient, concluded that, if it were a spasmodic stricture, it would probably yield to counter-irritation, and advised the application of dry cups along the spine, suggesting a postponement of forcible dilatation. We also agreed to try hypodermatic injections of sulphate of atropia, if the cups should prove unavailing. These plans were carried out faithfully for two days, but failed to afford any relief.

Still adhering to my original suggestion, but being still opposed by the patient and his friends, another consultation was held on the evening of May 27th (the eighth day) to which, besides Prof. Clark, Prof.

Austin Flint was invited. Both of these gentlemen regarded the case with considerable interest, as they informed me that they had never seen a case of spasmodic stricture of the œsophagus lasting eight days. As the prognosis looked bad if something were not done immediately to relieve the patient, fearing uræmia (no urine having been passed for nearly forty hours) I decided to introduce the bougie immediately in the presence of the consulting gentlemen. The patient, now worn out and discouraged, after some persuasion consented to have it done. No. 12 œsophageal sound was selected. On introducing the instrument no resistance was met with until the end reached the point where the patient felt the pain each time that he had previously swallowed. At that spot it was effectually resisted, when after a few seconds of gentle but steady pressure (exactly as in urethrisms) the contraction yielded, and the sound slipped into the stomach with ease. This fact was verified by proper measurement and by the end of the instrument being felt by abdominal palpation. After leaving the bougie *in situ* for a few moments, it was withdrawn without any perceptible grasping. A glass of water was then presented, which he swallowed freely, and when he felt that it entered the stomach he exclaimed that he felt perfectly relieved, and that he was sure that the obstacle had been removed. He then asked for some food, which was given him, and which was rapidly devoured.

He passed a very quiet night, and the next morning, apart from the severe exhaustion caused by the prolonged forced abstinence from food and drink, experienced no discomfort.

Since that time up to the date of this publication, about four and a half months, he has enjoyed his usual health, without the slightest return of the difficulty.

The preceding case is a most remarkable one in many respects. The extreme rarity of the disease, the age and sex of the patient, the duration of the attack, the absolute, unremitting closure of the œsophageal canal, the failure of medicinal remedial agents, the confirmation of the theory of the disease, and the prompt relief afforded by the application of that theory to the treatment, all tend to make the case well worthy of record, and of attentive study. A careful and laborious search of medical literature has failed to result in the finding of a case that presents so clearly the features of the disease, or of but one or two of the same nature, lasting so long, and terminating favorably. The present instance may therefore serve as a text for a few remarks on this rare though important affection.

FREQUENCY AND CAUSES.

If we accept the opinions of most of those who have written on this affection, we would be led to the conclusion that it was much less rare than a more careful examination proves. Most authors, especially the earlier ones, have included, in their descriptions, cases in which the œsophageal spasm was merely an accessory phenomenon to some other disease, such, for example, as tetanus, hydrophobia, or hysteria. Is we restrict the term *œsophagismus* to those cases in which there is no discoverable lesion present, or in which it is not merely the symp-

tom or result of some other affection, in other words where it is *idiopathic*, we shall find that most of the cases quoted will have to be excluded. This would leave but very few true cases, such as the one before us on record, and it must therefore be considered as one of the rarest affections met with.

Valleix* defines the condition as a "*convulsive constriction of the œsophagus* whose explanation can not be found in any organic lesion of that or the neighboring organs." This is perhaps the best definition yet proposed.

Von Ziemssen† says: "the so-called *idiopathic* spasm includes all those cases in which no definite anatomical cause can be demonstrated. If this idiopathic spasm is admitted to be a true neurosis of the œsophagus, it will be necessary to include under this form all those cases which result from reflex action, and from irritation of the terminal branches of the vagus nerve, external to the œsophagus, as well as irritation of other centripetal nerves." In all cases coming under this definition, and the present one is such a case, the patient must be the subject of some neurosis, the exact nature of which, however, may not be demonstrable.

The question arises what was the cause in the case above recorded? For twenty years previous to the first attack the patient had suffered from a neurotic trouble, exhibiting itself under the form of sciatica. The immediate cause of the spasm may be attributed to the impression produced on the peripheral nerves in an obviously sensitive condition of the nervous system, by the chilling of a cold bath. Subsequent attacks were produced by irritating substances, such as pickles or lemons, coming in direct contact with the peripheral filaments of the vagus nerve. Previous to the last attack he had been suffering from brachial neuralgia, and the electric bath which he took to relieve this, by irritating the peripheral nerves, may have excited a reflex spasm in the œsophagus.

AGE AND SEX.

As many of the causes are most frequently seen in the female sex and in adult age, we naturally find that the disease is most often met with in women, and after the age of puberty. All authorities are agreed on this point, though Everard Home and Dr. Stevenson have cited cases that have occurred during the first years of life. It is to be supposed, however, that these cases were nothing more than simple spasm of the glottis, or ordinary dysphagia.

DURATION OF THE ATTACK.

It is generally conceded that the attack is variable in its duration, sometimes lasting but a few moments, at others continuing for days. With very few exceptions it is remittent in character, the patient being able, at intervals, to swallow enough nourishment to preclude the possibility of death by inanition. In none of the recorded cases has the closure of the œsophagus been so absolute and unremittent as in the present one, death by starvation and uræmia being imminent.

Von Ziemssen,‡ in his excellent article, observes

* *Valleix. Guide du Médecin-Praticien. 5th edition tom. III. p. 584.*

† *Von Ziemssen. Cyclopædia of the Practice of Medicine Am. Ed. Vol. VIII, p. 206.*

‡ *Von Ziemssen, op. cit., p. 208.*

on this point: "The duration of a single attack varies considerably; it may continue for minutes, hours, days; indeed, the spasm has been known to last for weeks and months." The "cramp *spasmodica fixa, continua*" of Hamburger runs its course without pain, and shows fluctuations of intensity, without at any time complete disappearance of the spasm. In this rare form, *even though the ability to swallow is completely lost, the patient suffers, and with it, very perceptibly, the nutrition of the patient.*"

In those cases where an autopsy has been held, as in those reported by Rutherford, Monro and Power, no anatomical lesion has been found. (We, of course, exclude such cases in which there was ulceration of the œsophagus where the spasm was secondary).

The question of diagnosis becomes only of real importance where the disease is primary, for where it is a symptom of hysteria or tetanus, the recognition of its cause becomes a comparatively easy matter. The diagnosis of the idiopathic form can only be arrived at by a careful process of exclusion. Organic strictures arising from aneurismal, cancerous or other tumors must be negatived by careful physical examination, and consideration of the previous history. The suddenness of the attack, oftentimes making its first appearance during a meal, is a point that would lead us to suspect its nature. The passage of an œsophageal bougie would be the best means to determine the nature of the constriction. In passing the sound a resistance will be met with in both cases, but if the stricture be spasmodic, the obstruction will yield to its mere presence in a short time, whereas, if the constriction be an organic one, the passage of the instrument becomes more difficult and painful, and the same resistance is met with during its withdrawal.

In cases where the diagnosis is clearly determined, the prognosis is by no means unfavorable, although Henry Power and others have cited cases where the disease terminated fatally, in which no anatomical lesions were found on the autopsy.

The method of treating the affection will, of course, depend greatly upon the cause of the trouble. In those cases where it is only an accessory phenomenon, it does not call for special measures for its relief, subsiding when the original disease is under control. In such cases there is ordinarily nothing to be feared from inanition caused by the inability to swallow, or if there be, the symptoms of the primary affection are those that require most attention.

It is, however, the protracted idiopathic form that occupies us at present. Medicinal agents of many kinds have been used, sometimes with success, and sometimes fruitlessly. As, in these cases, the spasm arises from a reflex origin, it would seem *à priori* that the employment of such remedies as tend to allay reflex excitability, would offer the greatest hope of success. Dry cups to the spine,

camphor, musk, belladonna and bromide of potassium have been used with some advantage. The latter medicines might be given by the rectum, when they cannot be introduced into the stomach, or it would perhaps be still better to administer atropia or morphia hypodermically.

Strychnia and electricity have been recommended and some authorities have reported cases in which these methods were successful. Both of these remedies tend to increase reflex excitability, and it is difficult to understand how they can cut short an affection which takes its origin from the very effect that they produce. The only explanation that can be offered is that these cases were not spasmodic constriction but rather paralysis of the œsophagus, and the diagnosis was a mistaken one. In the case above recorded, the spasm supervened immediately after an electric bath, and might not the increased reflex excitability induced thereby have been the exciting cause of the affection?

In many cases, as in the one before us, all these measures will fail to afford relief. We must then have recourse to the œsophageal sound. A large size should be chosen, as it will probably accomplish its object better than a small one. The reason for this, is the same for which we usually select a urethral sound of large circumference, when we wish to overcome the obstruction produced by spasm in the urethra. We frequently find that spasmodic urethral strictures will admit an instrument of considerable size, when they will not allow of the introduction of a filiform. The cause of the stricture is in all probability identical in the two cases, a spasmodic contraction of the muscles surrounding the tube.

When the sound is first introduced, the obstruction will probably seem to become more resistant. The instrument should then be held against the resisting point with gentle yet firm pressure, and in a few moments the spasm will give way and the sound pass of itself without further opposition.

A single introduction of the bougie in this manner will often suffice, as in the case reported, for a complete and permanent cure. If the affection should return, a subsequent introduction becomes an easy matter.

The question arises is it worth while in a case of this nature to try medicinal remedial agents first? For my own part I think it best to proceed at once to the mechanical method of cure. An early introduction of the sound is sometimes an indispensable method of diagnosis, and at the same time that it gives us the necessary information concerning the disease, it likewise acts as a radical means of cure.

112 East 24th St., New York.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

CEREBRAL AND SPINAL MENINGITIS.

Ann G., age 37, was admitted April 13th, 1879. On admission, her condition did not allow of any definite history. The morning following she was very restless, constantly moving her hands, rolling the eyes about, and muttering to herself. Would

not readily allow a physical examination. Her face was covered with an erythematous blush, which lasted only about five minutes. The eyes were sunken, there was moderate emaciation; the bowels were regular, and the urine contained a large amount of pus and bacteria. She has a cough, and expectorates a considerable quantity of thick, offensive muco-pus. Physical examination shows evidences of consolidation at the apices of the lungs, and large mucous râles, not very abundant, are heard all over the chest. The liver is considerably diminished in size.

She was ordered whiskey 7 ij, t. i. d., cough mixture, liq. morph. sulph. (U. S. P.) 7 j, and nutritious diet.

April 15th.—Her temperature during the day was 101° Fahr. There was noticed slight jaundice. The patient was in a condition of muttering delirium. The following day she had retention of urine, which had to be drawn off with a catheter.

During the next three days her condition remained unchanged, except that a diarrhœa set in for which tannin suppositories were ordered, and ext. jaborandi fl. 3 j was given, as she was not passing much urine.

April 20th.—Her temperature fell from 103° in the morning to 101° at night, and she became rational, but was so weak that she could only speak in a whisper. She complained of nothing in particular, but said she had pain all over. She still has to have her urine drawn off with a catheter and secretes only a small amount, which is of a dark color, and contains no albumen. She has bed-sores forming on the heels and back. Receives whiskey 3 j every hour.

From her little child it is learned that she became sick in December last, when she had a bad cough, which has continued. She expectorates a great amount. A week after the cough began she had rheumatism (?); she has also complained of sensations of pins and needles sticking into her legs. Two weeks before admission she had been in bed because her feet were swollen.

April 23d.—She appeared a little brighter and talked a little above a whisper. She says she feels pretty fairly; complains of pain in her head and legs. The pupils are a little large, slight jaundice remains. She is constantly moving her hands in a nervous manner and there is much subsultus tendinum. She takes but little food; the bowels are regular; the urine is small in amount and is drawn off by the catheter. Temperature in the morning 100½°, evening 103°, respiration 38, pulse 116. Treatment consists of whiskey 3 ij every hour and Rochelle salts fifteen grains three times a day.

April 24th.—She complained of feeling cold and shivered like one in an ague fit. The surface of the body is warm to the touch; the pupils are contracted, the pulse is feeble and rapid; owing to the subsultus and trembling it is impossible to count it. Yesterday she had two involuntary passages of feces, this diarrhœa was checked by suppositories of tannin and opium.

April 25th.—She still has the appearance of one suffering from extreme cold; the whole body shakes and the teeth chatter, so that it is impossible to understand what she says. The surface is warm to

the touch and there is no appearance of cutis anserina. She has a large, deep bed-sore on the back, and the heels are very soft and tender. Upon attempting to move her she cries out as if in great pain. The urine is passed involuntarily; temperature 102°, respiration 36. She was put upon a water-bed and iodoform was applied to the bed-sore on the back and alcohol to the heels. The whiskey and Rochelle salts are continued.

April 30th.—Her condition is gradually growing worse. She now lies quietly in bed, the trembling movements having ceased yesterday. The only evidences of recognition are turning of the head and eyes. The latter still have the wild look which they have worn since her admission. For the last four days there has been a rattling sound in the trachea with the respiration. The bed-sore over the sacrum is very bad, no pulse can be found either in the radials or carotids. She receives nothing now in the way of treatment except whiskey and liquid food.

May 1st.—She died at 9:50 A. M.

Autopsy.—24 hours after death. The body is considerably emaciated and there is a large bed-sore over the sacrum extending very deeply.

In the *brain* there is a moderate amount of oedema separating the convolutions. On the inner surface of the dura mater over the convexity there is a false membrane, very thin, and not very extensive. The dura mater is not apparently thickened; the pia mater is normal.

The *lungs* showed a few cheesy nodules. In the *spinal cord* it was found that the inflammation around the bed-sore had extended to the meninges of the cord; the meningitis affected the membrane covering the posterior half of the cord and extended up to the cervical region.

SOCIETY REPORTS.

PROCEEDINGS OF THE PATHOLOGICAL SOCIETY, OCTOBER 8TH, 1879.

The meeting was called to order at 8 p. m., Dr. Joseph W. Howe, the Vice President, in the chair. The minutes of the previous meeting were read and, after a few corrections had been made by the members, adopted. The report of the microscopic committee was called for but was not forthcoming.

PURULENT PLEURITIS.

Dr. Smith, in presenting a specimen of lung, said: This specimen was taken from an infant of eighteen months. My attention was first called to it on the 9th of August, the day on which it was admitted to the hospital. It brought with it no previous history, except that it had been feverish for three or four days. On the evening that I first saw it, there was a light, moist fur on the tongue; there was no vomiting and the child had had one thin green stool. It fretted when pressure was made over the chest and abdomen. The temperature was 104.4-5°; the throat was red; on percussion there was flatness over the entire right side of the chest, and on applying the ear to the chest I found numerous fine, moist râles over the inferior angle of the scapula, as well as bronchial breathing and bronchophony;

there were also some moist râles anteriorly. Brandy and quinine were ordered and a poultice composed of flax-seed with a little mustard was applied. During the next few days the temperature varied between 102 and 103.4; the respiration was uniformly accelerated, being 60 to 88, and the pulse was frequent, 120 to 140 per minute. On the right side I could hear in places distinct bronchial breathing, in other places distant vesicular respiration. I made a diagnosis of pleurisy with effusion. The condition remained practically unchanged till the close of the month when I went off of duty; on examining from time to time as the child fretted or cried I noticed that there was no fremitus; this fact taken in connection with the distant and no doubt transmitted respiratory murmur confirmed me in my original opinion that it was a purulent pleuritis. Twice I introduced the needle of a hypodermic syringe but failed to obtain any fluid. During the month of September the symptoms continued about the same with a gradual failure of strength and on the 2d of October the child died.

At the post-mortem examination this lung, the right, was found somewhat compressed, and there were adhesions of its anterior part to the walls of the chest; these were somewhat stretched and firm. In the posterior part there was found a collection of pus, extending from half an inch from the base almost to the top, and measuring two inches in its vertical diameter, one and three quarters in its horizontal, and half an inch in its antero-posterior. This abscess had crowded forward the lung, showing why we found bronchial and transmitted vesicular respiration. The costal pleura on this side was thickened. The opposite lung was normal. Those who are not familiar with these cases will not appreciate the difficulty that is often experienced in making a differential diagnosis. By the use of the hypodermic syringe we failed to obtain pus so that this usually reliable guide may sometimes deceive us.

Being asked whether there was any cough Dr. Smith said that the child had an occasional cough which was not painful; but he had known cases of this kind to go through their whole course without cough.

Remarks being called for by the chairman, Dr. Janeway said: I have of late had my attention specially drawn to these cases and have seen quite a number. The text-books lay down rules which would seem to make it all easy; but the truth is that, for difficult cases, there are no rules. They say that in empyema the vocal fremitus is diminished or lost; but I have seen cases in which, on the contrary, it was exaggerated. I can recall three cases in which the empyema took up the position of the lower lobe, the line of dulness running exactly above the inter-lobular fissure, with bronchial breathing and bronchial voice and in which I put in a hypodermic needle and drew off pus. I was pretty sure of its being empyema from the clinical history. This shows the fallacy of absolute rules. There are other cases in which you get crepitation in the line of the axilla with bronchial breathing and bronchophony and it is only the type of the fever, the hectic, and the absence of cough that lead to doubt and the introduction of a hypodermic needle. But

this latter may fail to show anything positive even where there is fluid in the pleural cavity. This may be because the syringe does not work well; hence it is a safe rule, and one which I always adopt, to see how the hypodermic works before using it. Where I want more power I sometimes employ a veterinary hypodermic. Another cause for the failure of the hypodermic was its being occluded by a little fur or fibrin, or that it may not have gone into the pleural cavity, but into the lung. There is no more danger of breaking off a hypodermic needle than of breaking off the needle of an aspirator. I remember one disputed case in which a needle was tried three times with a negative result, and yet there was empyema at the post-mortem examination.

Another difficult class of cases are what are termed rheumatic, pneumonia, but which are much more frequently rheumatic pleurisy.

Dr. Smith remarked, in reference to the absence or presence of fremitus, as a sign that he had observed in cases occurring in children, that in such cases portions of the lung were adherent and it was that fremitus was felt. There was another point in connection with the post-mortem examination, and that was that the pus was almost of the consistency of putty, and, under the microscope, showed very few pus globules, but granular and fatty matter.

In reference to treatment, an interesting question was as to the letting out of the pus. He had at present under treatment a child with empyema following scarlet fever, as frequently happens; he had aspirated the chest every week, under that form of aspirator whose action could be reversed and throwing into the cavity after each aspiration a solution of carbolic acid of the strength of a teaspoonful to a pint or quart; but, though the child was improved at first after each aspiration, soon, as the pus collected, it grew worse, so that, on the whole, it had not done well, and he was inclined to think that a free opening was better.

Dr. Post being asked for his opinion, said that he, too, thought a free opening better.

Dr. Janeway thought that you might aspirate once or twice; if you could diminish the size of the sack after each aspiration the case was doing well; he remembered one in which it was necessary to repeat the operation eight times.

Dr. Leale said that he remembered the case of a man in 1875 from whom 75 oz. of pus had been removed by aspiration. Another of a child from whom he drew off 16 oz. and in which there was no reformation, and at whose autopsy two years later there were very few pleuritic bands of adhesion, and the lung had almost perfectly recovered. In other cases in which he had aspirated and tried to establish a fistulous opening afterward, on attempting to close the latter symptoms of hectic supervened.

Dr. Smith did not think that much assistance in diagnosis could be derived from measurements of the chest, as the presence of the fluid in the pleural cavity caused rather a compression and atelectasis of the lung than bulging out of the side of the chest. Of course if the empyema was on the left side we were much assisted by the displacement of the heart.

Dr. Wyeth referred to a case reported by a German surgeon, in which he had taken out a portion

of the ribs and the patient had recovered, and Dr. Janeway then called attention to a similar case at present in Bellevue Hospital.

Dr. Van Giesen presented a patient who had had
A FRACTURED FRONTAL BONE OF THE SKULL,

and whose case was remarkable for the fact that recovery had taken place. This man, while at work on a mast on the 21st of June last, fell from it to the deck, striking the side of his head transversely on this spike, which is $4\frac{3}{8}$ inches long and $\frac{5}{16}$ of an inch in diameter; his head was almost at right angles to the spike, and he was held down so firmly that it required considerable force to remove his head from the plank. On arriving at his house almost immediately after the injury, I found that I could introduce my little finger almost its whole length into the wound, and that a probe passed in to a distance of $3\frac{1}{4}$ inches. The wound was in front of the ear, immediately below the zygomatic process; I asked him at that time, suspecting that the optic nerve had been injured, whether he could see with the eye on the side of the injury (the left); he replied that he could, but he was probably mistaken, as he has since found out that he was totally blind in that eye. The simplest treatment was adopted, and the case progressed without any untoward symptom. On the 11th of July he noticed that when he attempted to blow his nose air came out from the ear, showing that the ethmoidal cells were injured. At no time was there any cerebral symptom—headache, vomiting, etc. I had his eye examined by Dr. Roosa, and he found the iris healthy, the vitreous clear, but in the retina white atrophy of the disk.

Dr. Wyeth thought it might have been the antrum of Highmore and not the ethmoidal cells that had been entered.

MALIGNANT DISEASE OF LUNG.

Dr. Van Giesen also presented portions of a lung and of a liver and said: "These were taken from a young man whom I first saw on the 1st of July, 1879. He had been in good health until two months previously, when he was taken sick with what the physician who attended him pronounced to be pleurisy, with organic disease of the heart. From this he partly recovered and went to work again, but did not feel entirely well. At the time I first saw him he was taken sick with pain in the side and difficulty of breathing. In the left infra-clavicular region there was slight pulsation and marked dullness on percussion; posteriorly about a similar situation there was less dullness, but the resonance was less than normal. Change in position of the patient made no change in the level of dullness. The pulsation in the radial arteries was equal. On July 5th Dr. Janeway saw the case with me in consultation and pronounced it to be one of malignant disease of the lung. The impulse under the clavicle was very slight; there was some swelling of the arm; the lymphatic glands in the neighborhood were not enlarged; there was no elevation of temperature; I ordered morphine and digitalis. He passed away from my observation for some time and on the 13th of August I found the symptoms increased; there was dullness increased and on both sides of the chest, both arms were

swollen and there was protrusion of the eyeball; the blueness of the lips and livid spots on the arms, which I had first noticed, were almost more intense; there was no appearance of cachexia. Shortly after this he died. At the post-mortem examination, when the primary incision into the thorax was made a milky juice flowed out and there was found considerable deposit of a similar character at the sterno-clavicular articulation; the anterior portion of the lung was adherent, and in it was found a large growth of a cancerous nature. There was little pulmonary tissue not invaded by the cancerous growth; there were also some similar deposits in the right lung but less extensive. There were vegetations in the cavities of the heart and the evidences of old pericarditis. In both pleuræ there was some fluid. There were some secondary deposits in the liver; the kidneys were hyperæmic. It is very true that in an advanced case one may make the diagnosis, but had we placed our hypodermic over the sterno-clavicular articulation we would have got the characteristic fluid—cancer-juice.

Dr. Janeway said that the diagnosis of cancer of the lung was not very easy. He has lately seen another case beside the one just presented in which there was most persistent vomiting, explained by pressure on the pneumogastric nerve, but there was no fever and the flatness was at the upper portion of the lung. He had seen the post-mortem of two other cases; one was a colloid cancer of the whole lung, which was very rare; the other was a mediastinal pleural tumor.

Dr. Post presented some small pieces of a tumor and said: These were taken from a lady who, about two years ago fell and bruised the coccygeal region; an abscess formed which healed, but broke out at each succeeding menstrual period. On examining her about two weeks ago, in an inter-menstrual period, I discovered a sinus, which I slit up, and found and removed with ranger, this tumor, which I present for its occurrence in such an unusual situation and as the result of injury.

I have here a view of

AN ENORMOUS LUPUS.

The patient is a German woman, aged 61, the whole of whose nasal pyramid had been swept away, and the disease had extended to the forehead and involved two-thirds of the upper lip. I operated upon her and in order to have free space unembarrassed by the administration of the anæsthetic, I first performed tracheotomy according to the method of Dr. Henry A. Martin of Boston, called tracheotomy without a tube. After the tracheal rings had been exposed, and incised, a procedure which involved considerable difficulty owing to the patient's having a short, thick neck, I attached the edges by a single suture to the integument on each side, and to the suture a strip of adhesive plaster, passing around toward the back of the neck. I thus secured to myself a large, free opening. The advantages of this over the ordinary method of performing tracheotomy are: first, that a large opening is obtained; secondly, there is no irritation caused by the presence of a tube, which I have seen cause ulceration; thirdly, there is no obstruction by mucus. From the result of this operation in the case under consid-

eration I am inclined to think that the wearing of a tube after tracheotomy will be abandoned, just as the use of a catheter after urethrotomy which was universal at one time, has been. After the tracheotomy, I crowded a large sponge, with a string attached to it, back over the tongue and continued the administration of the anæsthetic over the tracheal aperture. The operation was necessarily tedious and there was considerable hemorrhage, to arrest which it was necessary to stop from time to time and apply sutures and liq. fem. persulph. I began by dividing the upper lip, then continued the incision up the cheeks and around the cauthi until I had removed all that portion of the face involved in the disease, using the bistoury except around the canthi where I employed the scissors. After the operation the wound was dressed with lint moistened with collodion in order to keep the parts in position and up to the present time, she has done well.

I hope, if this operation is successful, to perform a plastic operation, using as a skeleton for the nose a part of one of the patient's fingers.

I also have here an

INTRA-MURAL FIBROID OF THE UTERUS.

which I removed about two weeks ago. The patient was an unmarried female and attention was first called to the presence of the tumor by an attack of retention of urine, when an examination revealed its presence. The tumor extended to the vulva and was attached to the posterior wall of the uterus; a uterine probe passed four inches into the cavity of the uterus. The patient's condition did not call for an immediate operation and I administered ergot steadily in order to bring the tumor further down; she continued to go about and even thought of returning to the country. A few days before the operation she began to droop and develop symptoms of blood-poisoning, and examining her I found the tumor livid and a sanious and foul-smelling discharge coming from the vagina; I therefore operated. The tumor was about four inches in the uterus, two inches in the vagina and one externally. I began by drawing down the tumor and removing the part that protruded; I then removed it part by part; then tried to remove the stump with the fingers and the serrated spoon and gradually drew it down and made the final separation. There has been no unfavorable symptom since.

Dr. Leale, presented an

INTESTINAL CALCULUS.

which had caused invagination of the intestines and constipation lasting forty-five days. The patient was a woman, aged 79, who had malaria, and suffered much from bilious colic, of which she had had an attack every four or five months during the past seven years. On the 20th of August she had an attack of most severe pain in the right iliac region, lasting for 24 hours, and followed by a dysentery which had continued for forty-five days, till the mass came away. As soon as she had recovered somewhat from the exhaustion occasioned by this attack I introduced a rectal tube, but it would not pass beyond the sigmoid flexure. During the succeeding three or four weeks the pain traveled along the situation of the ascending, transverse and descending colon. At the end of that time, by bimanual examination, I detected the invaginated

portion and passed my finger through it, and upon its withdrawal she had a fecal passage, which was again followed by constipation. In the meantime and subsequently she had stercoraceous vomiting. I had kept her bowels loose by cathartics, which, I think, were of advantage by exciting the anti-peristaltic movements of the intestines and preventing blood-poisoning. This condition continued till October 5th, when I was called to see her; found her much exhausted, and that she had had a convulsion, probably similar to what is observed in children, as the effect of intestinal irritation. On the following day I made a rectal examination, and found a hard mass protruding between the invagination and removed it. This calculus is $3\frac{1}{2}$ inches in diameter, the nucleus is a biliary calculus and around it are concentric layers of fecal matter deposited probably at the ileo-cæcal valve. Immediately afterward she rallied, and now promises to enjoy good health.

Dr. Amidon presented some microscopic specimens on which he would like to have the opinion of the members as to their being

SYPHILITIC OR TUBERCULAR.

The case had first come under his notice at the New York Hospital about a year and a half ago. The patient was a woman, aged 53, who had no history of syphilis, but a trigeminal neuralgia on both sides, affecting the infraorbital and supraorbital portions with hyperæmia, which had become so chronic as to lead to pigmentation of these portions of the face. She had been in the hospital about three weeks on a treatment of dialyzed iron and an aperient, with no improvement, when suddenly she developed paralysis of the third nerve on the right side, and epileptic attacks preceded by an olfactory aura; these increased till she was put on the mixed treatment, when she improved so much that she was discharged. She soon returned, however, in a typhoid condition, with all the symptoms aggravated, and died in one or two weeks.

At the post-mortem examination there was found a tumor replacing the third nerve on the right side, conical in shape, springing from the pons and crus. There was also meningitis of the pia mater on the floor of the fourth ventricle, causing it to adhere to the cerebellum; there was also a deposit of a yellow matter at the anterior and posterior perforated spaces, and involving the middle root of the olfactory nerve. There were also evidences of old perihepatitis. These deposits showed numerous small cells intimately connected with the blood vessels. The arteries showed the changes characteristic of syphilis, especially the young cells in the tunica adventitia, sometimes making the appearance of epithelial tubes. The patient's symptoms during life were also more those of syphilis than of tubercle—there were no fever and no maniacal attacks.

Dr. Satterthwaite thought it was impossible to distinguish the early stage of inflammation, gummy tumor, and tubercle, as they all had simply a deposit of lymphoid cells in the peri-vascular spaces.

Dr. Lang presented microscopic specimens of osteo-myelitis, raising the question as to the relation of micrococci to contagious diseases.

The Society then adjourned.

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and the Collateral Sciences.

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NEW YORK, SATURDAY, OCTOBER 18TH, 1879.

EDITORIAL.

MEDICAL COLLEGE INTRODUCTORIES.

Medical College Introductory literature was quite abundant during the first week of this month; most of it however had a deserved still-birth. While we may properly boast of much for American Medicine and Surgery, and not grant every claim for European supremacy, we must confess our inferiority in so far as the means of medical instruction are concerned. Every little clique of physicians in our land must have a college, and each college must have a paying patronage, therefore their doors are thrown wide open, and much persuasive eloquence intended to secure this paying patronage must be belched forth with every favoring occasion. This is a necessity, and our Medical College introductory however good in their scientific aspects, have this coloring, fitting them for catch-penny purposes that robs them of their chiefest charms; they are in sad contrast to the like addresses in the colleges of Europe, where the pecuniary interest has no effect upon the orator's efforts. The European introductory addresses are masterpieces and are published widely, and are generally and profitably read; our American efforts

seldom reach printer's ink, principally because they are but little more than solicitations. We are growing in wisdom and experience, as well as in years, and these defects will remedy themselves as time moves along.

Prof. Jean C. Deque's bearing of the theme, "Medical Education" at the formal opening of the medical department of the University of New York attracted considerable attention and found such favor with the daily journals that abstracts of it were freely given in them. We are quite unwilling to seem to withhold full praise for the effort, and would prefer to join the happy throng who sing an unlimited "*Te Deum*" over it.

But we distinctly recognize in it, the thrusting forward of the old soliciting and compromising spirit, in the hope that the seats in the University rooms may be filled, and we cannot and will not commend from so distinguished source, such petty and trifling sentiments. The professor when left to himself would not have marred his effort by such allusions, but the pecuniary necessities of the occasion gave a warp to his expressions, ill becoming and *non-scientific* though *artful*.

Medicine may be studied as a science or an art, said the Professor, and then according to report he added:

"It is no easy matter to establish rules to meet all cases. Men differ in capacity, and even were the questions of financial ability and time of life set aside the power to absorb in a given time mental pabulum is very variable. I shall only present a few thoughts in connection with this subject in the hope that they may aid some of you in arranging your plan of work. The question of a two or a three years' collegiate course first presents itself. If medicine is to be pursued as a science the decision is at once for a three years' course. From the art point of view there should also be little hesitation in cases where financial difficulties do not interfere. To him who is confined to a two years' course I would advise close attendance upon the regular lectures and recitations. No outside engagements whatever should interfere with college duties. Leisure hours should be devoted to such special courses as inclination and means permit the student to enjoy. The habit of taking brief, concise notes should be carefully cultivated, and the notes should be reviewed from time to time in order that the thread of the subject may be kept well in hand. There is little time to spare for medical reading during the winter; the summer is the time for that. Throughout the winter session the great advantages of seeing and hearing all that is going on in a busy medical world must be utilized to the utmost. If in his anxiety for advancement the student spends hours in reading which should be devoted to sleep, he will soon find that he fails to gain the full advantage of his day work and approaches it in an unsatisfactory mood. Let each season have its appointed task.

Students who are able to take a three years' course enjoy an enormous advantage in the thoroughness of their preparation. To induce as many as possible to adopt this arrangement of study the Faculty has established a graded course of examination for those who may be able to spend three years at college."

The practice of medicine is an art; in many cases an art directly founded upon pure and simple science; in others, it is pure art. In this it does not differ from the other professions, law or theology, for instance. Science has not built more securely or extensively for either of them than for medicine; else why such wrangling in courts, high and low? And such curses and prayers commingled in chapels? Man has reached perfection in nothing yet; neither in religion, politics, law, nor in business, nor in medicine. There is a science pertaining to each, beyond which art a mysterious and necessary substitute for science, the best substitute that the time offers, carries them.

Medicine in all of its departments will be a science perfect in itself, and its art will be built thereupon, as the rest of the arts. Such is the prospect. But for how long time shall humanity wait, suffering in ignorance and paying avarice a tribute, while such art medical ideas are hinted? Young physicians are of themselves sufficiently impatient and restive without receiving encouragement from such sources.

The watchword of progressive medicine is science first, and science ever. The American colleges must recognize this demand for thorough scientific medicine regardless of cost. The art which necessity demands beyond our present science and blind experience provides, will pass for temporary use, but it must be tested and tried and approved or rejected on principle; the principle must be taught as soon and thoroughly as can be.

We regret that one of the large medical institutions of our city should cast such a shadow upon the profession as to demand such an introductory. Such orations will mark resting places in medicine. Thought will not rest long, however, to admit of catch-penny considerations.

ABOUT BOOKS.

Diseases of the Bladder and Urethra in Women.
By Alexander J. C. Skene, M.D. Professor of the Diseases of Women in the Long Island College Hospital, etc., etc.

Dr. Skene has enjoyed such an extensive practice in the department of Diseases of Women, that the simple embodiment of his personal observations in book form would have been a profitable contribution to medical literature, but when to this wide ex-

perience is added a translation of the essentials of Winckel's great book, *Handbuch der Krankheiten der Weiblichen Harnrohre und Blase*, (Stuttgart, 1877,) with the additional gleanings which Winckel had made from the labors of others, our author has succeeded in giving to the profession a volume full of useful information, in a department of surgery hitherto too much neglected (in English works.)

If we could be justified in criticising Dr. Skene's book in one particular more than another, we would ascribe to it the same fault to be found with many American writers, namely; the failure to notice on the page or pages of the text the name of the author in the leading type, and to give in a foot note the article from which it is abstracted.

To say in a "Preface" that the author is indebted to a certain author for "much valuable material" is very proper, but ample justice fails when the name of the same author is omitted in the text, since the matter is likely to be accepted as original with the copyist. Take as an instance in the work before us, pages 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 and 46, etc., etc., are almost entirely translated from pages 33, 34, 67, 68, 69, 70, 71, 72, 73, 74, 75, etc., etc., of Winckel's book (cited above), yet Winckel is no more accredited with the matter than are Dubois, Dupuytren, Littre, Gosselin and others, who are not authorities of special weight in this department. Excepting the chapter on urinary analysis the same objection will apply to the greater portion of the work.

This fault (which is not confined to the volume before us) can detract nothing from the value of Dr. Skene's lectures, and they will be widely and profitably studied.

Some few errors have necessarily crept in in the adaptation, and the style of translation might have been improved in some instances. For instance, on page 251, "Various parasites may penetrate the walls from the immediate tissue or neighboring organs, or come down from the kidneys, as the *ecchinococci* already spoken of; the *distoma hæmatobium*, the *filaria sanguinis hominis* and *septo-thrixases*," etc. In Winckel's book (cited before) p. 196, "Von andern Parasiten welche in der Blase sich einbürgern können, wäre noch zu erwähnen das von Bilharz beschriebene *Distoma hæmatobium*, und die von Lewis charakterisirte *Filaria sanguinis hominis*," etc.; etc. In another paragraph occurs the sentence: "Erwähnt sei hier noch dass Kussner *Leptothrixrasen* auf der Blaseninnenfläche," etc. Of course to translate this word "*Septothrixases*" is only an error of the type, but it is questionable if this "*Leptothrix-rasen*" (from the Greek and German) *fine hairy tufts* is a parasite, as is the *filaria* and *distoma*. On page 256 the author does not mention the operation of removing a calculus from the female bladder by dilatation of the urethra, which is quite a common and successful operation.

Dr. Skene objects (p. 265) to the term "urethral neuralgia," and says "it is one of the *neuroses*." We were under the impression that neuralgia was considered as one of the *neuroses*.

Dr. Bozeman's paper on the treatment of urethrocele is happily quoted (p. 306, et seq.).

This able article was read before the New York

State Medical Society, 1871, and has since passed into the category of accepted surgical procedures.

It would have been better to have condensed Dr. Skene's work, and to have put it in the ordinary book form, rather than in a series of "Lectures" to a medical class.

Nothing from human hands is free from faults and safe from criticism, and we are pleased to find so little to criticize in this volume.

The author will improve the future editions we do not doubt, and this one will be readily sold and profitably studied, for a special work on the diseases of the urethra and bladder in women has long been needed.

SELECTIONS FROM JOURNALS.

DISEASE FROM A KISS.

Dr. R. L. Payne, of North Carolina, calls attention, in the *North Carolina Medical Journal*, to the danger of conveying disease by kissing. He would do away with this custom. He gives this case and comments:—

A young man came to me with a neglected case of pox. He was already in the secondary stage of the disease, and among other symptoms which presented, had several mucous patches upon and within his mouth.

He had a little cousin, a girl child of sixteen months of age, who was still at its mother's breast. They were very fond of each other, and he was frequently in the habit of fondling and kissing the child.

Of course, I knew nothing of this intimacy, or I should have warned him of the danger. Some weeks after this I was called to visit the child and its mother. I found the little one with enlarged cervical glands, sore mouth, sore eyes, etc., and its mother said to me, after I had prescribed for the child; "Doctor, please look at my nipple, I believe I am going to have cancer of the breast." Her nipple was sore indeed, and her axillary lymphatic glands were enlarged and indurated, not from cancer, but from a characteristic chancre.

I treated them all for syphilis, and the good results of the treatment verified my diagnosis. I have seen many similar cases during the last twenty-five years, and many more might be cited from the authorities upon this loathsome disease, but the above are sufficient for my purpose.

Very many other diseases may be conveyed by the act of kissing, and I might go on at length enumerating them, and adducing "confirmations as strong as proof of Holy Writ;" but my object is simply to call attention to the truth which lies in this direction, and to testify most solemnly against a practice so fraught with danger, so pregnant with death!

The act of kissing is never, under any circumstance, indispensable, and the indiscriminate practice is not only unnecessary, but is also foolish, dangerous, and very often insincere.

Ah, yes; many an insidious kiss has been given since the days of Judas! Then, why longer indulge in a custom so empty, so meaningless, but yet so potent for evil?—*Med. and Surg. Rep.*

PROGRESS IN PHYSIOLOGY.

In his address before the section on physiology, of the British Med. Ass., at Cork, Aug., 1879, Mr. Henry Power points out most of the important advances in that science during the preceding year. He refers in the opening of his paper to the imperfect instruction given to students in that branch, and wisely says that a good deal of time devoted to the study of fine and practically valueless anatomical points, might be more profitably spent in the acquirement of more accurate and detailed physiological knowledge.

Some of the most important of the points he notices may be briefly summarized.

COMPOSITION OF CELLS.

Dr. Klein (*Quarterly Journal of Microsc. Science*, 1878, p. 315, April, 1879), finds that cells are composed of a delicate plexus of fibres, the meshes of which contain a juice or plasma. The nucleus possesses a definite membrane, and is again composed essentially of an intra-nuclear network of fibres and a nuclear juice. The nucleoli he regards as only a condensation of the fibrous plexus.

The experiments of Richet and of Haidenhain, go to prove that the acid of the gastric juice is hydrochloric, the view originally advanced by Frouit.

According to Dulzsay, (*Gaz. Med.*, 1878, No. 15,) the number of the red corpuscles of the blood is from four to five millions in a cubic millimetre, with about six thousand white corpuscles, the proportion between the two being seven hundred red to one white. The absolute number of red corpuscles is greater in men than in women, and greater in adult life than in infancy or old age. It increases after food.

Dr. R. Norris has discovered a hitherto unrecognized corpuscular element in the blood.

Ludwig has shown that the ganglion cells of the heart are paralyzed on exposure to high temperature, but again become active when the temperature is reduced. The inhibitory fibres and ganglia resist a high temperature better than the motor ganglia.

Martin & Booker sum up their experiments on respiration (*British Journal of Physiology*, Vol. I., 1878-79, p. 373) as follows: "There lies deep in the mid-brain of the rabbit beneath the posterior corpora quadrigemina and close to the iter, a respiration regulating center, similar to that in the corpora ligemina of the frog; electrical stimulation of this center causes accelerated respiration, finally passing into tetanic fixation of the chest in an inspiratory condition, and correspondingly diminishes or altogether inhibits expiration."

The structure of the nerves has been investigated by Boll. The main results are that the axis cylinder is liquid or at least semi-liquid and is certainly destitute of any fibrillar structure. It is contained in a special sheath. The medullary sheath is interrupted at each Ranvier's node, and is homogeneous. The sheath of Schwann is a closed tube without solution of continuity, but it is thickened at the nodes of Ranvier.

In regard to the localization of the functions of the brain, a question which has attracted much attention of late years owing to the suggestive experiments of Hitzig, Ferrier and others, a valuable paper has been contributed to a late number of *Pflüger's Archiv*, by Professor Goltz, in which he defends the method of investigation he has pursued; that, namely of cutting away large portions of the periphery of the brain, and by careful subsequent attention to the well-being of the animal effecting recovery; a method that has been treated somewhat lightly by Hitzig. In several cases Goltz cut away as much as a drachm from the brains of dogs, and found that the animals retained all their faculties, though in a more or less dulled and blunted condition. Their intelligence he thinks is weakened not lost; their vision and hearing are enfeebled; their tactile sense impaired; their muscular sense rendered imperfect. Still, however, they retain a large amount of intellectual power. They can move about, perceive the contact of external objects, and masticate their food. Hence Goltz arrives at the conclusion that all parts of the cortex of the brain are of nearly equivalent value, though he admits that removal of the frontal lobes induces greater and more persistent impairment of sensation than removal of the cortex of the posterior lobes, whilst ablation of a drachm of the posterior lobes occasions more persistent impairment of vision. Practically he thinks that the brain is an integral part of the body and works as a whole; each part of

connected with all the sensory nerves of the body. This view of course stands in direct opposition to that advocated by Brown-Sequard, who maintained that the brain is connected with a definite portion of the brain. (It is also in confirmation of the theories advanced by Brown-Sequard in his recent lectures

Gower has published an interesting case of congenital absence of one hand, in which he found that the brain presented a remarkable difference in the development of the two posterior central convolutions of the opposite side, though its mi-

has demonstrated that the germinal vesicle does not, as was formerly supposed, and is still maintained, entirely disappear. The nuclear element, probably playing an important part in the development of the ovum.

MOUNTAIN AIR IN THE TREATMENT OF PHTHISIS

A paper read at the meeting of the British Medical Association, in which most of the members of the British Med. Association joined, the president closed it. He said he did not think the character of the discussion would justify any judicial decision in the present case. The speaker, Dr. Henry Bennett, said that two or three things had been contributed to the advancement of our knowledge of it. The first was this, that the alleged cures of phthisis were not owing to elevated height, or diminished barometric pressure, or to great cold, or to any of the alleged conditions to which they had been told they were due a little while ago, but, according to Dr. Henry Bennett, to certain hygienic precautions followed by the patients within certain limits of temperature. Dr. Allbutt gave a theory of the reason of the selection of these climates. He said that recovery in them was due to the antiseptic character of the atmosphere of these localities. That was an assertion which yet remained to be proved. It might be a coincidence merely, or it might have some casual connection with the result. But, with all due respect to Dr. Clifford Allbutt, he doubted if that theory covered the whole facts of the case.

TREATMENT OF RHEUMATIC FEVER.

The president summed up the results of the discussion on this subject as follows:—First, they had as yet no stable criterion where by to determine the therapeutic effects of any drug upon rheumatic fever. Secondly, therapeutic conclusions were apt to be vitiated by failing to distinguish between two forms of the disease. Third, while the influence of salicylic acid and its compounds somewhat speedily relieved the malaise of which the rheumatic sufferer complained, it was extremely doubtful whether they in any degree diminished the peril of secondary cardiac or other inflammatory complications. Lastly, it was left uncertain whether they succeeded in removing that actual pathological state of which, in a sense, these other things might be said to be the expression. In short, there was almost a greater tendency to relapse with the salicylates than otherwise.—*The British Medical Journal*, Aug. 23rd, 1879.

ACARDIAC FÆTUS.

A correspondent in Vienna has sent us the following description of an acardiac fetus which is interesting in a developmental point of view. The case was one of twins, the other twin being healthy and well developed. It was an irregular mass weighing about three or four pounds, covered with epidermis, and presenting at one part a quantity of hair, apparently the scalp, though no proper head could be said to exist. Just in front of this hairy region were two rounded discolored projections; and, again, just in front and between these was the insertion of the cord. At each extremity of the more or less crescentic mass was a projection, each with several subdivisions; these were apparently the upper and lower extremities. On further dissection of the fetus it was seen that the right projection corresponded to one upper extremity; the left to a

lower extremity. There was a partially developed cranium, but not quite corresponding to the hairy region. The larger projecting sac, about the size of a walnut, was found to contain about half of the intestines, the remainder forming a little knot just inside the abdominal cavity, which was filled with a discolored serous fluid. The other projection contained a viscid, dark-brown fluid; and the walls of the sac were much thicker than those of the other; it apparently represented the liver. There were a well developed spinal column, rudimentary ribs and a more or less complete pelvis. At the upper part of the trunk could be seen a single capsule; the corresponding one of the other side was apparently wanting. In the extremities were well developed blood vessels which had been very nicely injected. There was no trace of a heart to be discovered. At the lower part of the abdomen was a large sac, apparently the bladder. On each side and above this were two bodies; probably ovaries or testes. If either however, they would be the former, for the other twin was in this case a female; and it has been clearly established that twins developed from a single ovum, and having only a single placenta, and one amniotic sac, are of the same sex. The mass was of the normal color of the newly born infant, thus showing that it must have been living up to the time of birth or very nearly. And now comes the question, viz.: how this mass of flesh could live, grow, and how its circulation could be kept up, without a heart. The theory put forward by Czernowitz is the following. One fetus (A) is considerably more developed than the other (B), and consequently A's heart beats much more strongly than that of B. There is a face communication in the placenta, of the blood stream from the umbilical arteries of A than from those of B. A's heart is much more powerful than that of B, and so the blood stream from A overpowers that from B and changes its direction. Thus the blood that leaves A's heart passes down the aorta, through the hypogastric and umbilical arteries, to the placenta, into the umbilical arteries of B, up the aorta and so to the heart. But naturally it closes the aortic valves; and so B's heart is shut off from the circulation, quickly atrophies and in a short time disappears. Thus the circulation is kept up in the two bodies by one heart. In A, the healthy fetus, the umbilical arteries carry venous blood and the umbilical vein arterial blood, as is usual; whereas in B the whole course of the circulation is reversed; the umbilical arteries receive arterial blood, and the umbilical vein returns impure blood to the placenta.—*British Medical Journal*, Aug. 23, 1879.

THE ADMINISTRATION OF CHLOROFORM.

BY

WM. MEACHER, M.D.

In an interesting article Dr. Meacher claims that most of the deaths occurring from the administration of chloroform, are wrongly ascribed to the anæsthetic or to any diseased condition of the patient, such as heart disease, but simply to faulty administration. He claims that patients with heart disease, who require an operation, are those who most need the anæsthetic, as it prevents shock and mental effort. Most physicians watch the pulse very closely, but neglect the breathing, which is the really important point. It is not alone necessary to see that the movements of respiration are going on, but that air is actually entering the chest, as the former may occur without the latter. The danger occurs from the aryteno-epiglottidean folds falling together and preventing the entrance of air. All that is necessary is to pull the tongue well forward when air will again enter, often with a loud stertorous inspiration. The main point is that the character of the breathing is a much safer guide to danger than the pulse.—(*Chicago Medical Journal and Examiner*, Sept. 1879.)

HERNIA REDUCED BY ELASTIC BANDAGE.

BY

R. THILLY, M.D.

The patient was a woman 44 years; had been previously troubled with hernia, but the reduction had been effected with ease. Tumor was size of hen's egg. Nausea present but no vomiting. Had been down three days. Taxis was faithfully tried under chloroform. Rubber bandage was applied and patient left for two hours. The hernia was not reduced, but it was noticed that the bandage had not been well applied, being too wide. It was readjusted and in a quarter of an hour the

hernia was reduced. The bandage should be applied at two inches wide. It was first laid over the tumor, then over the affected side, brought over the hypogastric region and round the back and overlapping the end, brought down the groin, straight over the tumor, it was then brought round the back of the thigh, and once more passed round the body to be brought again over the hernia and firmly secured.—(*Chicago Medical Journal and Literature*, Sept. 1874.)

RECENT PROGRESS IN MEDICAL CHEMISTRY.

WILLIAM B. HILLS, M.D.

TOXICOLOGY.

Antidote for Phosphorus.—Two French physicians claim to have discovered in the slow injection of oxygen into the veins a successful antidote to poisoning by phosphorus. Its action is as follows. Phosphorus has a great affinity for oxygen. When, therefore, it is absorbed into the system its injurious effects are due to the fact that it unites with the oxygen of the tissues, thus producing its dangerous results. If, however, oxygen is introduced into the veins the phosphorus is thereby oxidized, and prevented from depriving the tissues of their oxygen.

Iodide of Starch as an Antidote.—Dr. Bellini, in a paper read before the Medical Society of Florence, recommends the iodide of starch as an antidote to poisons generally. It is free from any disagreeable taste, and has not the irritating properties of iodine, so that it can be administered in large doses. He has made numerous experiments, and states, as a result of these, that at the temperature of the stomach and in the presence of the gastric juice the iodide combines with many of the poisons, forming in some cases insoluble compounds, in others soluble compounds, which are harmless so long as they are not in too large quantity. He recommends it as safe in all cases where the nature of the poison is unknown, and as especially efficient in cases of poisoning by sulphuretted hydrogen, by the alkaloids and alkaline sulphides, by caustic alkalies, by ammonia, and especially by those alkaloids with which iodine forms insoluble compounds. In cases of poisoning by salts of lead and mercury it aids the elimination of these compounds. In cases of acute poisoning an emetic should be employed soon after its administration.

Carbolic Acid.—Drs. Langenbuch† and Sonnenburg§ have referred to the dangerous results that are liable to follow the use of carbolic acid in antiseptic surgery. It is in the case of children especially that danger is to be apprehended. According to Sonnenburg, adults suffer chiefly from nausea, vomiting and headache; while in the case of children there is collapse, often preceded by restlessness and excitement. During the stage of collapse the temperature in children may fall to 34° Cent. In the lighter grades of poisoning, and preceding the stage of collapse, there may be a rise of temperature to 39° Cent. Sometimes these conditions end in death. In these cases the examination of the urine is very important, in that it enables one to determine whether carbolic acid poison is setting in or not. Baumann* has shown that a disappearance of the sulphates from the urine goes hand in hand with the development of the symptoms of carbolic acid poisoning, while the quantity of associated sulphuric acid (*gepaarte Schwefelsäure*) is at the same time increased. When the poisonous symptoms reach their height, the sulphates will be found to have disappeared entirely. Baumann has further shown that, if sulphate of soda is administered to an animal suffering from symptoms of poisoning by carbolic acid, a non-poisonous phenol-sulphuric acid is produced, so that sulphate of soda or any soluble sulphate is a direct chemical antidote to carbolic acid. Sonnenburg gives a list of cases in which symptoms of poisoning followed the use of carbolic acid, and in which the sulphate of soda was administered. In some of these cases the grade of poisoning was so high that the urine had the dark color characteristic of this form of poisoning, and the sulphates were entirely wanting. The general result of the treatment was that the bad symptoms disappeared, the urine became normal, and it was possible in most cases to continue the dressings as

before. The dose which he recommends is, for adults, a tablespoonful each half hour of a solution containing five parts of the sulphate of soda in one to two hundred parts of water; for children, the same amount of solution containing four parts in two hundred. Later Dr. Sonnenburg has made the discovery that in these cases of poisoning repeated dressings with a 5 per cent. solution of sulphate of soda are a very efficient antidote. The urine, which at first is of a dark green color, with a slight brown tinge, soon assumes a normal color, when the dressings with carbolic acid may be resumed without danger.

Hydrocyanic Acid.—Cases of poisoning by hydrocyanic acid, where the acid resulted from the decomposition of a ferrocyanide in the body, are quite rare, two or three cases only being on record. Dr. Volz, of Ulm, relates a case‡ where the hydrocyanic acid was produced by the action of hydrochloric acid on the ferrocyanide. The body was examined forty hours after death. The post-mortem appearances were essentially those produced by the local action of the hydrochloric acid, though death was without doubt caused by the hydrocyanic acid. Hydrocyanic acid was readily obtained from the stomach by chemical analysis, and the residue after distillation was found to contain ferrocyanide of potassium.

Atropia Poisoning Successfully Treated With Morphia.—C. G. Polk, M.D.,* reports the case. The patient was fifty years old. When first seen, the pupils were widely dilated, breathing stertorous, sensibility almost lost, coma profound. The stomach-pump could not be used on account of his condition. Four grains of the acetate of morphia were injected into his arm, and a solution of tannin prescribed. Two hours later one half grain of the sulphate of morphia every half hour was ordered. Four hours later the breathing was much improved; pulse full, though slow and soft, not exceeding 50 per minute. Two grains of the sulphate of morphia were injected into the arm at this time. The next morning the patient was well. The total amount of morphia taken by the patient was ten grains.

Corrosive Sublimate.—Dr. Krobryner† reports a case of poisoning from one-third of a grain of corrosive sublimate. A young man of twenty-one, under treatment for syphilis, took without sanction two corrosive sublimate pills, containing one-sixth of a grain each. A little later he was taken with intolerable burning pain in the stomach and abdomen, and vomiting. His pulse became small, his extremities cold, and face pinched. There was no salivation. He was given iron by hydrogen (which was not retained) and albumen. The symptoms continued for ten hours, then began to diminish, the patient finally recovering. This case is interesting on account of the small amount of the poison which gave rise to the symptoms.

Salicylic Acid.—Dr. Feltz‡ reports the poisoning of a man who took two hundred grams of salicylate of sodium in one month. He took four grams three times daily for seven days; then increased the dose to six grams, and in the last seventeen days to eight grams, three times daily. The symptoms were chiefly frequent vomiting and repeated attacks of very painful headache, preceded by reddening of the neck, face and head. The pupils were contracted. The symptoms continued for seventeen days after the last dose had been taken. The acid could be detected in the urine for sixteen days. J. W. Compston, M.D., in an article on the Poisonous Effects of Salicylic Acid,§ gives brief abstracts of a considerable number of cases where dangerous symptoms, and even death, have resulted from the rash administration of this remedy.

Paul Cazeneuve|| has investigated the subject of poisoning by salicylic acid and salicylate of sodium. According to him, dangerous symptoms may be produced by the acid in doses of twenty grams. It may be readily detected in the urine by chemical analysis. Cazeneuve recommends the following process for its detection, as being simple and exact in its results, and applicable when the quantity of acid is very small. It

* *The Illinois Medical Review*, May 1, 1879, page 304, from *Med. Chir. Centralbl.*, March 21, 1879.

† *The Illinois Medical Review*, Feb. 1, 1879, page 72, from *Chir. Centralbl.*, Jan. 1, 1879.

‡ *The Virginia Medical Monthly*, July, 1879, page 304.

§ *The Philadelphia Medical Times*, November 9, 1878, page 60, from *Bull. gen. de Therap.*, vol. ii. 1878, page 75.

|| *Annals of the Academy of Pharmacy*, March 1, 1879, page 13, from *Zig.*, December 14, 1878, page 205.

|| *The Illinois Medical Review*, May 1, 1879, page 304, from *Journal de Pharm.*, March 1, 1879.

* *The Illinois Medical Review*, May 1, 1879, page 304.

† *The Illinois Medical Review*, Feb. 1, 1879, page 72.

‡ *Revue Médicale de la France*, N. S., 1879, page 101.

§ *Revue Médicale de la France*, N. S., 1879, page 101.

|| *Revue Médicale de la France*, N. S., 1879, page 101.

* *Max's Jahresbericht*, 1878, page 13, from *Deutscher Apotheker-Verein*, ix. 1, 5, 54.

...and other animal ... One ... with the ... The residue, finely divided by reason of the plaster, is exhausted with chloroform. The chloroform is separated by distillation, and the residue taken up with boiling water. Pass, while hot, through a moistened filter. The acid, if in sufficient quantity, separates from the aqueous solution upon cooling. It is now pure enough to be weighed. If the acid is in too small quantity to crystallize from the hot aqueous solution, its presence may always be made evident by the violet band obtained by carefully pouring upon the suspected liquid a solution of perchloride of iron. In this process the plaster retains the coloring matter of the urine as well as other animal coloring matters. Even if the chloroform withdraws a small amount of coloring matter, it is left behind when the chloroform residue is ... with water. *Journal of the Medical Society, New York, Aug., 1877.*

FORMULARY.

This week we deviate from our custom of giving reliable and standard prescriptions, and substitute THE COMPOSITION OF CERTAIN POPULAR NOSTRUMS.

Walter's California Vegetable Vinegar Bitters.—Each bottle contains from nineteen to twenty fluid ounces, consisting of a decoction of aloes and a little gum guaiac, anise seed and sassafras bark, in water slightly acidulated with acetic acid, possibly the result of secondary fermentation, or added in the form of sour cider. Each bottle contains also about one ounce of Glauber's salt, one-quarter of an ounce of gum arabic, and from one-half to one ounce of alcohol. (Eberbach, Hoffmann, Nichols.)

Brandreth's Pills.—Each box contains twenty-four or twenty-five pills, weighing about two and one-half grains. The twenty-four pills consist of ten grains of podophyllum root, ten grains of extract of the same, thirty grains of the extract of poke berries, ten grains of powdered cloves, from two to five grains of gamboge, traces of Spanish saffron, and a few drops of oil of peppermint. (Hager.)

Radway's Ready Relief.—This is a light brown liquid, consisting of eight parts of soap liniment, one part of the tincture of capsicum, and one part of aquo ammonia. (Hager, Heckolt, Hoffmann.)

Radway's Renovating Resolvent.—Each bottle contains about six fluid ounces of a vinous tincture of cardamon and ginger sweetened with sugar. (Hager.)

Pierce's Golden Medical Discovery.—Each bottle contains one drachm of the extract of lettuce, one ounce of honey, one-half drachm of the tincture of opium, three ounces of dilute alcohol, and three ounces of water. (Hager.)

Pierce's Favorite Prescription.—A greenish-brown turbid liquid, consisting of a solution of one-half ounce of sugar, one drachm of gum arabic, in eight ounces of a decoction made from two drachms of savine, two drachms of white agaric, one and one-quarter drachms of cinnamon, and two drachms of cinchona bark; to this mixture are added one-half drachm of tincture of opium, one-half drachm of tincture of digitalis, and a solution of eight drops of oil of anise in one and one-half ounces of alcohol. (Hager.)

Van Bieskirk's Fragrant Soreolent.—A red liquid consisting of a solution of one-half drachm of white

castile soap in one ounce of alcohol, three-quarters of an ounce of water, and one-quarter of an ounce of glycerine, colored with cochineal, and flavored with oils of winter-green, cloves and peppermint. The powder which accompanies each bottle consists of a mixture of precipitated chalk, powdered orris root and carbonate of magnesia. (Wittstein, Hoffmann.)

The above are taken from Hoffman's "Popular Health Almanac," a publication which is meant to serve as an antidote to the numerous almanacs distributed broadcast through the country as a means of advertising various patent nostrums.

AYER'S CHERRY PECTORAL.

R. Morph. acetat. gr. iij
Tr. sanguin. canad. 3 ij
Vini antim. et potas. tart.
Vini ipecac. aa 3 ij
Syr. pruin virgin. 3 ij

M.

NEWS ITEMS AND NOTES.

Dr. Frank H. Hamilton, Surgical Clinics, Bellevue Hospital.—Dr. Frank H. Hamilton's Surgical Clinics, will commence at Bellevue Hospital, on Wednesday, Nov. 5th, at 2:30 P. M., and continue eight weeks, same day and hour each week. They are open to medical men, and to the students of all the colleges. The first clinic will be devoted to a study of one hundred and twenty or more cases of fracture of the patella. A large number of examples will be brought before the class, by way of illustrating the proper mode of treatment, and the usual results.

A Cincinnati woman, speaking of her sick husband, said, "You see I gave him a great deal of bread and milk—the doctor tells me to. I don't know why he prescribes it, but I suppose it flies to the part and acts as a kind of poultice, you know."

ARMY NEWS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM SEPT. 20, 1879, TO OCT. 3d, 1879.

R. M. O'Reilly Capt. and Asst. Surgeon. Granted leave of absence for one month with permission to leave limits of Dept. S. O., 145, Dept. of the South, Sept. 26, '79.

B. D. Taylor, 1st. Lieut. and Asst. Surgeon. Granted leave of absence for three months with permission to apply for one month's extension. S. O., 222 A. G. O., Sept. 25th, '79.

W. W. Gray, 1st Lieut. and Asst. Surgeon, when relieved from duty at Ft. Colville, W. T., to proceed to Vancouver Barracks and report to the Commanding officer for duty, S. O. 123, Dept. of the Columbia, Sept. 15, 1879.

W. Webster, Major and Surgeon, relieved from duty Ft. Warren, Mass., and assigned to duty as Post Surgeon at Ft. Preble, Me. S. O., 167, Dept. of the East, Sept. 22, 1876.

Wm. H. Forwood, Major and Surgeon. Leave of absence extended two months. S. O., 218, A. G. O., Sept. 20, 1879.

J. W. Brewer, Capt. Asst. Surgeon. Granted leave of absence for six months on Surgeon's certificate of disability. S. O., 219, A. G. O., Sept. 22, 1879.

W. S. Tremaine, captain and assistant surgeon. So much of par. 3. S. o. 195. Aug. 25, '79, from A. G. O., as relates to him, is revoked, t. o. 220, A. G. O., Sept. 23, '79.

J. P. Kimball, captain and assistant surgeon. Having reported in person at these headquarters, assigned to duty at Fort Sanders, Wyo. T. S. o., 82. Department of the Platte, Sept. 20, '79.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial, for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. Advertisers ask a trial.

LECTURES.

TWO CLINICAL LECTURES ON DISEASE OF THE SPINAL CORD AND ITS ENVELOPES IN THE CERVICAL REGION.

Delivered at the Philadelphia Hospital.

BY

CHARLES K. MILLS, M.D.,

Neurologist to the Hospital.

(Prepared for THE HOSPITAL GAZETTE.)

LECTURE I.

GENTLEMEN:—In the series of lectures which I inaugurate to-day, it is my intention to bring before you some cases illustrating lesions at different heights in the spinal cord. As I have already shown you, unilateral or bilateral vertical lesions, affecting certain columns or horns, give rise to symptoms distinctive and peculiar; and, in like manner, disease limited to a transverse area of the cord, or an affection of its enveloping bones or membranes, of such a character as to produce localized pressure, will cause special phenomena that will render a regional diagnosis not only possible, but, in most instances, easy. Such lesions are usually spoken of as focal, focal transverse or non-systematic, in contrast to the systematic or symmetrical diseases, which occupy definite longitudinal fasciculi of the spinal marrow. Besides being sometimes the victim of essential myelitis, the cord suffers, at different levels, from such affections as vertebral caries, inflammation of the spinal dura and pia mater, wounds, compression, concussion, tumors, hemorrhages, etc.

The first case is one of disease affecting the cervical cord. I will read to you her previous history, and examine her in your presence, and after this discuss, among other matters, the probable locality of the lesion.

A. R., aged 40, white, single. Was in good health until September 19, 1878, when she fell backwards down a stairway striking on the back of her head and neck. She was unconscious for an hour, and was taken to a hospital. She suffered terrible pain, which radiated from the back of her neck in all directions. The slightest jar of the head would cause "lightning like" darts to shoot from her neck down her arms and body, and even down her legs to the toes. She was compelled to keep her head carefully in one position, as any attempt at movement brought on agonizing pain. Both hands felt numb, and had in them a peculiar crawling sensation, which extended up the right fore-arm and arm, but was confined to the fingers and hand on the left side. According to her own statements, the surgeons who had her in charge repeatedly tested her for sensibility, and found the right upper extremity and portions of the left completely anæsthetic. She

says that needles could be thrust into her without her feeling them. Her right arm and hand were helpless, and the left nearly so; her lower limbs were weak, although she was able to walk. Her sight became dim immediately after the injury, and has so remained ever since. In a few days a large external swelling made its appearance on the back of her neck. The functions of her bowels and bladder were unaffected. She remained constantly in bed for six weeks, after which she was able to get up and move cautiously about the room, careless movements still causing pain in the neck, head, shoulders and back.

Her treatment consisted of rest, and medicines, probably narcotics, by the mouth; blisters, wet and dry cups, and tincture of iodine were also used locally at different times; but she got most relief from two free incisions which were made in the swollen tissues at the nape of the neck. The wounds were allowed to remain open for three months. Two long vertical scars are visible, one on each side of the spinal column, reaching from the first to the fifth cervical vertebra.

Nearly a year has elapsed since the accident. Her condition has improved under the treatment to which I will presently refer. Observe carefully the symptoms which she now presents.

As she passes around the clinic-room, notice the stiff way in which she holds her head and neck, giving her something of the air of the soldier in the old fashioned stocks. On trying her, you see that she can bow the head well forward and without discomfort, but cannot bend it backwards beyond the vertical line; she is also able to slowly rotate it to the right through about one-third of the usual distance, but scarcely at all to the left. She has constantly, as she tells you, some pain in the neck and up the back of her head, which is greatly aggravated by tapping the later, or by any sudden movement of the head, neck, or body. The spine is tender both to pressure and percussion from the occiput to the middle dorsal region, this being most marked over the middle cervical district. She says that she always has a distressing sense of constriction or choking high up in the neck. The neck, particularly over the sterno-cleido-mastoid and trapezius muscles, is hyper-æsthetic.

Passing a sponge which has been dipped in hot water from below upwards along the spine, she shrinks when the sixth dorsal vertebra is reached, the tenderness becoming greater and greater as the cervical region is ascended. Ice produces a still more painful impression, and a weak faradic current passed through the vertebræ causes distressing pain.

Both upper extremities are weak, but the right is decidedly more parietic than the left; all movements can be performed, but with decreased strength; she registers 20° on the dynamometer with the right hand, and 38° with the left. Her arms are not notably atrophied and exhibit no deformities, contractures, or changes in color. Her finger nails, she thinks, grow more actively now than before her injury. Carefully testing for sensibility, you observe, in the first place, that loss of sensation is more marked in the right upper extremity than in the left; and in the right, the anæsthesia is much more decided in the median than in either the ulnar

or radial distribution; she cannot distinguish between the compass-points at all on the central anterior aspect of the limb. On the left side the anæsthesia appears to be limited chiefly to the palmar surfaces of the fingers. Two or three times daily she has peculiar spells, in which both hands feel numb and dead and become paler and colder than usual. Her hands constantly have a sensation as if she had fallen on gravel. Sensation is also impaired in both feet and legs, the impairment here also being more marked in the right than in the left limb as in the upper extremities. She tells us that she is "weak in the legs," and you observe that her gait is somewhat shuffling; and yet, paralysis and atrophy in special muscular groups cannot be made out.

She complains of a peculiar dimness or haziness of sight, which sometimes is worse than at others. The sight of the right eye is very poor; the left is pretty good for distant but not for near objects.

She is liable especially at nights to seizures, which fill her with anxiety and dread. Respiration becomes difficult; she feels as if her breath would leave her; her heart palpitates; her sight becomes very dim.

The patellar reflex is exaggerated on both sides but more on the right than on the left. The slightest tap on the right ligamentum patellæ causes a sudden and somewhat violent jerking forward of the foot and leg.

Her menses have not appeared since she was injured; but her bladder and bowels have always acted normally.

The axillary temperatures show some peculiarities, but to these I will recur again.

Briefly recapitulating, the main features of this case are as follows:

The history of a severe injury to the spine in the cervical region; rigidity of the spinal column; pain radiating from the back of the neck, increased by movement, pressure, percussion, and by the application of heat, cold or electricity; paresis of both upper and lower extremities, but more marked in the former, and more decided on the right side than on the left; disturbances of sensibility—anæsthesia and paræsthesia—also most developed in the right upper limb, but quite positively present in the other extremities; a sense of constriction, a choking high up in the throat; vaso-motor changes as indicated by the spells of coldness and pallor; dimness of sight and oculo-pupillary symptoms; seizures showing interference with respiratory and circulatory centres; exaggerated tendon reflexions; suppression of menses; alterations in the body temperature.

Such a combination of symptoms points, I think, unmistakeably to disease both of the cervical cord and of its envelopes, bony and membranous. The injury probably caused inflammatory disease of the upper cervical vertebræ and their periosteum, the periostitis extending a considerable distance downwards; and a circumscribed meningitis and myelitis, by extension, or otherwise, being subsequently set up.

The pathological condition, as you will often find after injuries to the spine, is a complex one.

Disease of the vertebræ or intervertebral substance is rendered probable by several points in the history, and present condition of the patient, such as, the

cervical, occipital and radiating pains: pain on jarring the head or body, and on pressure or percussion in the cervical region; and the stiffness of the neck and partial torticollis.

The tenderness to pressure and percussion, and to electrical and temperature tests over the lower cervical and upper dorsal vertebræ, may be due to a vertebral periostitis, or may be a hyperæsthetic state dependent upon the serious disease above. Actual involvement of the cord and its membranes is shown by the paresis, the perverted sensibility, the girdling sensation, the vaso-motor, ocular, respiratory, reflex, and other changes. Whether marked caries of the cervical vertebræ has taken place I am unable to say. Probably the tendency to destructive disease of the bone has been largely checked by treatment. Cerebral external pachymeningitis, which is sometimes a complication of caries of the upper cervical vertebræ, does not appear to have arisen.

Both loss of motion and sensation are most decided on the right side of the body. This fact can be accounted for by the position, and probable shape and extent of the lesion which is evidently so far as its effect upon the cord is concerned, irregular in outline. You have not a crossed hemiplegia with hemianæsthesia, because you have not a lesion of one lateral half of the cord. The motor and sensory phenomena may also be somewhat peculiar, because, it is likely that the lower part of the region of motor decussation is itself involved.

Usually, as in the common form of Pott's disease, compression of the cord, the result of the pathological processes going on in its surroundings, takes place from its anterior aspect, which accounts for the fact that motor disorders are generally the first to appear and rank first in importance. In this patient the sensory manifestations—pain, hyperæsthesia, anæsthesia, etc.—on the whole outweigh the motor, and I believe that the posterior aspect of the cord is chiefly, but not exclusively, the seat of the compressing or inflammatory trouble.

You have a lesion, which, if not prevented from extending, will give rise to that most deplorable condition known as cervical paraplegia, in which the patient, paralyzed from the neck downwards, often succumbs as the result of involvement of respiratory and cardiac centres from extension brainward of the pathological process. This danger has more than once threatened this case.

The all-important question arises, what is to be done for this patient? The case is a most serious one; unstayed in its progress, it may lead to hopeless general paralysis and death. This poor woman's present sufferings also need our attention. I have already described to you the treatment, well chosen and serviceable, resorted to at the hospital to which she was taken immediately after the accident. The measures adopted were, in brief, rest, narcotics and counter-irritation, and these agencies will still be found among our most useful resources.

A cure in such cases is not impossible. Although it is quite likely that you have not here a case of true caries of the vertebræ, yet the condition of the cord and meninges is probably similar to that which is often found in caries, and the prognosis is certainly as hopeful as it is in the latter affection.

According to Rosenthal (*Clinical Treatise on the Diseases of the Nervous System*) recovery from paraplegia and contractures in vertebral caries has been affirmed especially by Bouvier and Leudet; it has been more recently confirmed and demonstrated histologically by Charcot. Michaud has published in detail the case of a woman who had recovered for five years from a paraplegia with contracture, after treatment with repeated moxas, and who finally died of coxalgia. The cord at the point of compression was reduced to the thickness of a goose-quill, and was very firm and of a grey color. The parenchyma was in a condition of secondary degeneration, and the grey substance had been reduced to one of the anterior horns. Under the microscope a considerable number of nerve tubes with their axis cylinders were found in the midst of the sclerosed tissue. In the opinion of the author there was no regeneration of nerve tubes or even of the myeline health in this case. The meningitic and myelitic processes had merely retrogressed and had left unaffected the conductivity in the intact portions of the white and grey substance, and this sufficed to maintain motion and sensation. I quote these remarks in regard to the curability of spinal caries and of destructive disease of the cord, that you may be encouraged to vigorously and perseveringly attack cases like the one before you to-day.

Energetic counter-irritation has been used since coming under my care. In the first place, tincture of iodine was liberally and repeatedly applied over a broad space from a point well up in the hair to a few inches below the lower limits of spinal tenderness. This seemed to do some good, but the relief from it was not marked, sinapisms were also employed with some benefit. Heroic blistering, many times repeated, has been of much real service, largely relieving her pain, hyperæsthesia, paræsthesia, paresis, and other symptoms. I have not yet used cauterization with the hot iron, but I would advise it in similar cases, and will certainly resort to it, if blistering begins to lose its effect, or if any other reason arises for changing the form of counter-irritation. Whether blister or cautery be used, you must not be satisfied with two or three trials, but the operation must be often repeated, being careful not to lose the vantage-ground gained. In this, as in all other instances in which strong counter-irritation is the chosen instrumentality, the general health of the patient must not be neglected.

For more than two weeks, a weak ascending galvanic current has been applied daily, including between the rhizophones, the painful spinal region, and apparently with much benefit, especially as regards pain, hyperæsthesia, and spasmodic symptoms.

The strength and effort required to sustain the head and body erect, and the irritating effects of jarring movements of the head, trunk, or limbs, indicate rest and quietude. The patient may be kept in bed as much as possible and you may even take measures to enforce rest of the arms by binding them with bandages or plaster or sustaining them with slings.

Orthopædic and mechanical treatment has not yet been used in this case, but when you are satisfied that you have actual or threatened caries, ap-

paratus to lift the weight of the head from the spinal column must at once be used.

To promote absorption of the exudation to act directly upon the chronic meningitis or meningo-myelitis, both mercury and the iodide of potassium have been largely employed. The old combination of the bichloride of mercury with the iodide has been perseveringly tried. I attribute a part of the improvement in the patient's condition to the use of these remedies.

The spells of dread and difficulty of breathing which usually come on at night need prompt attention. Such attacks are of not infrequent occurrence in patients suffering from cervical and dorsal disease. They sometimes suddenly awake from sleep feeling as if they were about to die, as if they could not breathe. For relief they will of their own accord, if able, seek the sitting posture; if they cannot do this they should be propped up; or Brown-Sequard's suggestion to drain blood from the spine may be tried—causing the patient to lie on the abdomen or side with the hands and feet dependent. Dry or wet cupping along the spine will sometimes give immediate relief. Belladonna, digitalis and carbonate of ammonia, with whiskey, may be temporarily needed, because of threatened paralysis of respiratory and cardiac nerves or centres. Bromide of potassium after the first danger is over will be found useful. You seem to have here to deal with conditions of local irritation and congestion, which start in and around the seat of permanent lesion.

HOSPITAL RECORDS.

BELLEUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

VERBESS OF THE MOUTH.

This patient, a strong, healthy-looking man, age 48, was admitted May 31st, 1878. He never had anything like his present illness before. From his wife it was ascertained that he had been a hard drinker for a long time. For about two weeks before admission he suffered from toothache, affecting the two lower incisors of the right side. On the morning of the 27th of May on arising he noticed a hard lump of the size of a hickory nut under his tongue, which could be felt externally. It was not painful or tender but continued to increase in size and for the first time became painful on the 29th. He gives no history of constitutional symptoms, has had no chill at any time, but some diarrhœa.

On admission his temperature is 105°, his pulse is strong and rapid. Upon looking into the mouth, which is opened with difficulty, a swelling is noticed under the tongue which projects forward and upward and at first sight makes him look as if he had a double tongue. This swelling under the tongue is semi-translucent and when punctured is diminished in size by the escape of a clear fluid in small quantity. Further examination of the mouth shows only tenderness of the inner surface of the cheeks. The two teeth spoken of were extracted and caused him no further trouble.

There seems to be an enlargement of the tissues comprising the floor of the mouth, more especially on the right side. The surface is smooth and of normal color. There is much tenderness on pressure and it causes him considerable pain. There is more saliva than normal secreted. The urine has a specific gravity of 1012, is alkaline, and contains no albumen.

June 5.—Since admission, his temperature has been considerably elevated; his general strength remains good.

On the night of June 3d the patient began to act strangely. Kept getting out of bed and talking in a rambling manner, though when spoken to he answered rationally. He is still somewhat incoherent in his speech and requires to be tied in bed to prevent him from getting up. Says he feels first rate but has rocks in his mouth. The pupils are normal. Yesterday he had severe headache, of which he does not complain to-day. The bowels are now regular. He passes his urine occasionally in bed, though conscious that he is doing so. The temperature has varied from 102° to 104°.

He has no cough, but spits out a large amount of white, tenacious matter. His breath is very offensive.

Since admission the swelling has gradually increased in size, and reached its maximum about three days ago; since then it has not diminished. The entire lower jaw is now very much enlarged, principally at the lower part; the swelling involves the cheeks but little; the neck is considerably affected, especially at the sterno-mastoid muscles. The patient says he has no pain in it, nor does it seem to be tender. The color is red; to the touch it has been quite hard until yesterday, when it seemed as if pus was present, but the hypodermic needle failed to detect any.

The swelling in the mouth is less this morning; an incision was made underneath the jaw, a little to the right of the median line, which gave vent to blood and considerable gas which had a very offensive odor. A silver probe introduced into the wound was deeply blackened, and was with difficulty cleaned again.

He has been receiving quin. sulph. gr. x t.i.d.; ice was applied to the swelling until yesterday, when poultices were used. For the headache ice was applied to the head. Last night, to quiet him, he was given chloral hydrat. gr. xv. and potass. bromid. 3 ss.

In the course of the day, the patient has been growing more and more delirious, and at evening requires to be tied firmly in bed. From the opening there is little or no discharge, and the tumor has not at all diminished in size. He has the appearance of a man with delirium tremens and has illusions. The eyes roll wildly in the head; the face is pale; the pulse is felt with difficulty, owing to his violent movements; he passes his urine in bed; the respiratory murmur is heard distinctly; apparently there is no laryngeal obstruction; the character of the voice has not changed, and he breathes easily. He was ordered chloral. hydrat. gr. xv., potass. bromid. gr. xxx. at one dose. About twenty minutes afterward he became quieter, breathing at longer intervals, though without difficulty, and thus quietly died.

Autopsy, 21 hours after death. In the brain the pia-mater was opaque and thickened; there was

very considerable œdema and some congestion of the brain; the lateral ventricles contained an excess of clear fluid; the heart, liver and spleen were about normal, though the latter was somewhat congested, as were also the kidneys; there was marked œdema of the right lung, and the remains of old pleurisy in the shape of adhesions.

Upon cutting into the swelling about the jaw a large mass of tissue was revealed that had lost its vitality. The color was dark, with occasional yellow streaks and foci of disorganization; there was no regular collection of pus into abscesses; the odor was intensely disagreeable; the destructive process extended down to the larynx, but did not involve the perichondrium or cartilages; the connective tissue beneath the sterno-hyoid and sterno-thyroid muscles was involved, and these muscles themselves were somewhat softened and discolored, as was all the tissue in the floor of the mouth. The jaw itself was not affected, except on the right side, where the last two molars had been; here there was slight necrosis, and from this the disorganizing process extended downward on the inner side of the jaw; the mucous membrane of the entire larynx was whiter than normal, and considerably swollen and moderately softened; the swelling of the aryteno-epiglottidean folds was particularly marked.

ORIGINAL ARTICLES.

A STUDY OF ABOUT ONE HUNDRED AND TWENTY CASES OF FRACTURE OF THE PATELLA.

BY

DR. FRANK H. HAMILTON,
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SECOND PAPER.

The first paper (55 cases) was devoted to those cases only which had come under my own observation; and it was my intention now to publish such Bellevue Hospital cases as have not been seen by me, and for the correctness of which the hospital records are mainly or wholly responsible. I find, however, that some of them were seen by me, and notes were taken, by which in part these reports will be governed. Of a few other hospital cases my private notes supply records, while no account of them has been found in the hospital books. Possibly in the search they have been overlooked.

Three or four have been added which were at the time of treatment more or less under my observation in the Reception Hospitals, which were at one time auxiliary to Bellevue. The notes were taken by me while I occupied the position of Surgeon-in-chief of these Hospitals. Of course they do not comprise all of the cases treated in these hospitals.

Hereafter I shall not attempt to present the cases in a classified order, having found this exceedingly difficult to do in a manner to be absolutely correct, or profitable to the reader.

SIMPLE TRANSVERSE FRACTURE, FROM DIRECT FORCE.—FIBROUS UNION OF $\frac{1}{2}$ INCH—RUPTURE AND FIBROUS UNION OF 1 INCH—RUPTURE AND NO UNION. (Seen by the writer).

CASE 56.—John Smith, laborer, æt., 25, slipped on an icy sidewalk, Jan. 10, 1871, striking the right knee and breaking the patella transversely at the lower end of upper fourth. Dr. M., of this city, applied a plaster-of-Paris splint on the third day. Kept in bed three or four weeks and then walked about a little. Removed at end of six weeks. Found fragments united with a separation of about half an inch, with but little motion in the joint. He was told to go to work, having an elastic knee-cap upon the knee and leg. One week later his foot twisted a little under him; he felt a sharp pain in the knee and found the fragments much separated. A good deal of swelling ensued. Four days later Dr. B. put on a posterior leather splint, and this was kept on eight weeks, during most of which time he was in bed. Fragments were then found united, with a separation of half an inch or more. He was then permitted to go out, with the posterior splint still applied.

Four weeks later, in descending a flight of steps, while bending the knee slightly, the fragments parted again. Dr. S. was now called, and for three months Drs. S. and V. tried to make the fragments unite but could not, the patient being kept in bed, and the parts supported with adhesive straps.

I examined Mr. Smith, Oct. 1, 1879. The fragments are separated $3\frac{1}{2}$ inches, and he can flex the joint only 10° ; cannot extend it. There is no bond of union. The fragments are not enlarged. The upper fragment is very small and fixed. The lower is tilted, so that the separation is greater on the inside than outer. He can only extend his leg by turning it in very much, when the vastus externus, which is attached to the lower fragment alone, lifts the leg. In ascending steps he drags the lame leg after the other, yet he walks very well on a level surface. Muscles of thigh are wasted. Has worn a knee-cap for 4 or 5 years, and says he cannot walk well without it.

SIMPLE TRANSVERSE FRACTURE AT THE MIDDLE, FROM DIRECT FORCE—FIBROUS UNION, OF $\frac{1}{2}$ INCH. (Seen by the writer.)

CASE 57.—Wm. Marr, æt. 43. Oct. 19, 1875, fell and struck upon his left knee, his knee striking upon a bar of iron.

Oct. 21.—He was admitted to Bellevue, 2d Surg. Div., Dr. Markoe's service. The patella was broken transversely at its middle, and the fragments were separated one inch. The knee was swollen. A pasteboard, posterior splint was applied, and secured by a roller.

Oct. 28.—Swelling has subsided. Considerable ecchymosis. Case presented to the class in the amphitheatre by Dr. Markoe.

Oct. 29.—10th day. Two crescentic pieces of wood were placed above and below the fragments, adhesive strips were applied, and by some contrivance the crescentic blocks were rendered adjustable.

Oct. 31.—Apparatus painful and not satisfactory, and removed.

Nov. 1.—Circular adhesive strips applied, and these were approximated by counter bands of cotton roller, bringing the fragments into apposition. The limb was supported by a posterior wooden splint.

Nov. 5.—Has an attack of pleuritis.

Nov. 19.—Fragments in "good position."

Nov. 26.—38th day. A plaster-of-Paris splint applied, and patient allowed to go about on crutches.

Dec. 16.—58th day. Plaster-of-Paris splint removed. Fragments in good apposition and united firmly. Can bend the knee a little, and can walk by the exercise of caution. An elastic knee-cap applied.

Jan. 7, 1876.—90th day. Can walk quite well on a horizontal surface by the aid of a cane. Discharged.

I saw the man Oct. 2, 1879, nearly four years after the accident. Wore elastic knee-cap about three months. Has now perfect use of limb. Fragments separated half an inch, and the bond of union feels like bone, but the fragments can be moved slightly upon each other, showing that it is fibrous.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE.—LIGAMENTOUS UNION OF $\frac{1}{4}$ INCH.

CASE 58.—Maria Mossopp, æt. 25, broke the patella transversely by a fall upon a brick, May 26 1866. Admitted to Bellevue, on the following day. The fragments were separated one inch and three-quarters.

May 29.—My inclined plane apparatus was applied, and, in addition, long oblique straps, enclosing the thigh, and secured by cords to the foot piece, in order to antagonize the quadriceps.

June 1.—The long adhesive straps were found loose, and were removed on account of vesications caused by them above the patella.

July 9.—Posterior splint and knee-cap substituted, and patient allowed to get out of bed.

Sept. 15.—Discharged (nearly four months from time of accident). Ligamentous union of three-quarters of an inch.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW—MALGAIGNE'S HOOKS—FIBROUS UNION (?) OF $\frac{1}{4}$ INCH.

CASE 59.—Maria Masson, æt. 27. Had her left patella broken transversely from direct violence, Aug. 20, 1867. Admitted on same day to 1st Surg. Div., Bellevue. On examination, the fragments were found separated three-quarters of an inch, and the parts much swollen.

The limb was placed upon an inclined plane, without dressings, and evaporating lotion applied.

Aug. 31.—Eleventh day. Adhesive strips were applied to secure apposition of fragments, the limb still resting upon the inclined plane.

Sept. 3.—Fourteenth day. Malgaigne's hooks were applied (see Fig. 214, p. 471, of the 5th ed. of my work on Fractures and Dislocations). Instead, however, of making the points penetrate the skin and bone, as practiced by Malgaigne, a small piece of leather was placed above and below, on the edges of the fragments, and over these several layers of adhesive plaster. The hooks were then applied. The points caused some pain, and a small piece of tin

was laid over the leather and plaster, and the hooks reapplied.

Oct. 8.—The hooks were removed, and then reapplied.

Oct. 26. Sixty-seven days after the injury, and fifty-three after the hooks were applied, apparatus removed finally. The joint was quite stiff, and the fragments separated one-quarter of an inch. We presume that from the record we may infer that the bond of union was ligamentous, yet this is not stated. She was discharged Nov. 26.

(There is much reason to suppose that this case was in the same person as Case 3, and that it was a *re-fracture*.)

SIMPLE TRANSVERSE FRACTURE.

CASE 60.—Bridget Callahan, æt. 80, fell about thirteen feet, Jan. 7, 1871, breaking the right patella. Admitted to Bellevue on the same day. Second Surg. Div. Her limb was laid upon an inclined plane, and the fragments secured with figure-of-8 bandage.

Subsequently the limb was dressed with a plaster-of-Paris bandage, extending from the ankle to the hip, with an opening above the knee. The fragments being secured with adhesive strips laid obliquely, and a roller.

Jan. 27.—"Fragments in close apposition."
(There are no farther notes of this case.)

COMMINUTED FRACTURE, COMPLICATED WITH OTHER INJURY—DIED OF SHOCK ON 4TH DAY.

CASE 61.—George Christ, æt. 21, was run over by a street car Sept. 1, 1869, and was admitted on the same day to the 2d Surg. Div.; Dr. A. Mott's service; having sustained a compound fracture of the left femur, and a comminuted fracture of the left patella.

He died of shock on the fourth day.

SIMPLE TRANSVERSE FRACTURE—DISCHARGED "CURED" IN 61 DAYS.

CASE 62.—Julia Carr, æt. 42, fell upon her knee, striking the edge of a step, Feb. 11, 1877; on same day admitted to 3d Surg. Div. Bellevue.

Fracture transverse, and separation one-half inch. Buck's extension was applied, with a posterior splint. The fragments being secured with a many-tailed bandage.

April 13.—Sixty-one days—discharged "cured."
(Here the record closes.)

TRANSVERSE FRACTURE FROM DIRECT FORCE—FIBROUS UNION OF ½ INCH. (Not found in Hospital Record, but seen by myself.)

CASE 63.—Wm. Smith, æt. 25, fell upon his right knee Dec. 26, 1875, and on the same day was admitted to Bellevue, ward 11. Five days later a plaster-of-Paris splint was applied by one of the house surgeons. This was removed at the end of six weeks and reapplied. It was removed finally about the middle of March, having been on the limb about ten weeks. The fragments were separated half an inch, with a fibrous bond of union. Could move the joint slightly.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION.—NO BOND OF UNION.—SEPARATION OF ¾ INCHES. (seen by the writer in 1879.)

CASE 64.—John Hennesy, æt. 27, slipped May 7th, 1872, in descending a flight of steps, and doubled his left leg under him sharply. He did not feel any thing give way, but he found he could only walk with help. A surgeon of this city was called, who put on a straight splint, the knee being much swollen. About the third day a plaster-of-Paris splint was applied, which was kept on about two weeks. After this the posterior splint was re-applied. He used a cane nine months, and bandaged the leg for a year.

I saw this man, through the courtesy of Dr. L. D. Buckley, Sept. 29, 1879, more than seven years after the accident. The fracture was transverse, below the middle. The upper fragment is considerably hypertrophied. When the limb is straight the fragments separate 2½ inches, and when flexed, ¾ inches. There is no evidence of any bond of union between the fragments. He can flex the leg perfectly but cannot by the muscles alone extend it completely. He walks very well on a level surface, but is very liable to fall. In ascending steps he drags the left leg after him. It is occasionally painful, and if he stands much the joint becomes filled with fluid.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION.—FIBROUS UNION OF ½ INCH.

CASE 65.—Nelly Strong, æt. 23, admitted to 4th Surg. Div. Bellevue, Feb. 21, 1876, having just broken her left patella transversely below its middle. She stated that she slipped in descending a flight of steps and twisted her ankle, and that attempting to support herself the patella broke. (Her nose had been partly destroyed by "lupus" and a tolerably successful operation had been made for its restoration, from the upper lip.)

On admission the knee was greatly swollen. The limb was laid upon a straight splint and evaporating lotions applied. On the 24th the swelling had begun to subside, and the fragments were found separated ¼ inch.

Feb. 29.—Adhesive strips applied in the form of the "lock strap," but it would not bring the fragments together.

March 6.—(2 weeks) Plaster-of-Paris splint applied, but it caused so much pain that it had to be removed, and on the following day a posterior leather splint was applied, with adhesive strips to support the fragments.

March 29.—Splint removed and re-applied, after giving to the joint slight motion.

April 4.—Fragments separated ⅓ inch. Daily passive motion.

April 26.—Splint still on leg. Discharged "cured." We may presume that a fibrous union occurred, as the exact amount of separation is given.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION; FOLLOWING A SLIGHT INJURY—FIBROUS UNION OF ½ INCH.

CASE 66.—Thomas Shielab, æt. 42, admitted Jan. 10, 1878, to Bellevue Hospital, 2d Surg. Div. He states that two months before he hit his left knee against

a ladder, causing some pain, but he continued to perform his duties as a fireman. This morning, standing at the corner of the street, he turned suddenly and fell upon his lame knee, and could not rise. On admission there was considerable swelling. Fracture of left patella; transverse, at upper end of lower $\frac{1}{2}$. A posterior splint was applied and an evaporating lotion.

Jan. 21.—Swelling gone; bandage applied over splint and knee to support fragments.

Jan. 27.—Bandage has slipped; reapplied; no pain and doing well.

Feb. 1 (22d day).—Plaster-of-Paris splint applied and kept on one month; then passive motion employed.

April 6, (3 months).—Discharged. Firm fibrous union, fragments being separated $\frac{1}{2}$ inch; motion one-third normal.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—FIBROUS UNION $\frac{3}{4}$ INCH—OPPOSITE PATELLA BROKEN IN SAME MANNER, FROM MUSCULAR ACTION, NEARLY SIXTEEN MONTHS LATER.
—FIBROUS UNION $\frac{1}{2}$ INCH. (Seen by the writer in 1879.)

CASES 67-8.—Margaret Woods, 240 E. 75th St., æt. 25, in descending a flight of steps Sept. 14, 1877, caught her foot and fell, breaking the right patella transversely below its middle from muscular action. She felt it break. Sept. 15 removed to Bellevue, 4th Surg. Div., Dr. E. Mason's service. The fragments were found separated $\frac{5}{8}$ inch. A posterior splint was applied with a bandage.

Oct. 2.—Dr. A. Mott's apparatus substituted. This caused her considerable pain. Oct. 8th it was removed and adhesive plasters were applied to reduce fragments, and over this a plaster-of-Paris splint. (Hospital record here terminates.)

When she consulted me Sept., 1879, she informed me that the plaster splint was kept on six weeks. She was discharged Dec. 26th, 1877. Some time later she laid aside her crutches.

Jan. 1, 1879.—In descending a flight of steps her foot turned, and in attempting to support herself she broke the left patella in the same manner and at the same point as the right. She did not fall. She was taken to Roosevelt Hospital, service of Dr. Sands. A simple bandage was applied for two weeks, and then a silicate-of-soda splint was applied, which remained on six weeks. April 9th she left the hospital on crutches.

Sept. 26, 1879.—More than two years after the first accident I found both patellæ united with ligaments of about $\frac{3}{4}$ of an inch in length. Some grating under the fragments. She could walk without a cane on a level surface; could flex and extend both legs perfectly, but could not go up and down stairs; considerable pain in knees; had not been out of the house for a long time.

I advised use of the limbs out of doors, and electricity.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—NO TREATMENT FOR SIX WEEKS.—FIBROUS UNION OF $\frac{3}{8}$ INCH.

CASE 69.—Catherine Connor, æt. 20, in jumping

from a carriage, broke the right patella transversely. Muscular action. She says nothing was done for the fracture, but that she remained in bed six weeks, or up to the time of admission to Bellevue.

Admitted to First Surgical Division, April 6, 1866. Fragments separated two inches. The limb was laid upon an inclined plane, and adhesive strips applied longitudinally from above and below over the patella, and so interlocked as to draw the fragments together. April 16, dressings reapplied.

May 12.—Dressings finally removed. Fragments united by a ligament of three-eighths-of-an-inch (36 days after apparatus was applied, and about 11 weeks after the fracture was received.)

May 19.—Walking on crutches.

Aug. 16.—Discharged—nearly five months after the injury was received. Could not then walk without crutches.

SIMPLE TRANSVERSE FRACTURE, PROBABLY FROM MUSCULAR ACTION.—PLASTER-OF-PARIS AND OTHER DRESSINGS—FIBROUS UNION OF $\frac{1}{4}$ INCH, (Seen by the writer.)

CASE 70.—Wm. Masterson, æt. 30, "caught his foot and fell when three steps from the bottom of a flight of steps, not falling heavily upon the floor, when he felt something give way in his knee. He was admitted on the same day, Dec. 15, 1878, to Bellevue, 2d Surg. Div., and was found to have a transverse fracture of the left patella. There was slight effusion into the joint. A posterior splint was applied, and the fragments were supported by a bandage. Ice-bags applied to knee.

Dec. 19.—Ice-bags discontinued and "wooden fingers" applied to support the fragments.

Dec. 20.—Not able to bear the pain caused by the "wooden fingers." Straps were placed under them and over the patella.

Dec. 31.—Straps have loosened. Replaced.

Jan. 6.—Form and position of straps changed, and their ends tacked to the posterior splint, and over this a roller bandage.

Jan. 7.—Complains of pain; roller bandage too tight; removed; the other bands continued; foot raised.

Jan. 17.—Fibrous union. Fragments separated $\frac{1}{4}$ inch. Plaster-of-Paris splint applied (33rd day), foot swelled and it was cut open next day.

Feb. 18.—Sitting up.

Discharged in February.

I examined Mr. Masterson Oct. 1, 1879. Found the fragments united by a ligament of half-an-inch. No hypertrophy. Flexes and extends leg perfectly. Drags the leg in going up stairs. Hurts in descending. Walks well on a level surface.

Mr. M. says that when the splint was removed the joint was quite stiff. Wore a bandage and knee-cap occasionally since, but not lately. Never used any force to overcome the ankylosis. Obtained free motion in about two months, using passive motion.

SIMPLE TRANSVERSE FRACTURE, FROM MUSCULAR ACTION—FIBROUS UNION, $\frac{1}{2}$ INCH. (Seen by the writer.)

CASE 71.—Henry Scombs, æt., 49, weighing 200 lbs., was admitted to Bellevue, 2d Surg. Div., Nov.

6, 1878. On the same day he tripped and fell down a flight of steps, but did not strike his knee. He was found to have a transverse fracture of the right patella below its middle. The fragments separated $\frac{3}{4}$ inch. Some swelling and effusion into the joint, ecchymosis; complete loss of power to extend limb, but not much pain. Splint and adhesive strips were applied, but the fragments were not brought into contact.

Nov. 11.—Effusion continues; no pain; adhesive plasters removed, and with the fingers fragments easily brought together; carved pieces of wood to represent fingers—were placed above and below and secured with adhesive strips, bringing the fragments into apposition; but he was unable to bear the pain they caused, and they were removed the same day; adhesive strips alone were again employed; ice-bags applied.

Nov. 15.—Ice suspended; "wooden fingers" again tried, but the pain again compelled their removal, and the substitution of adhesive strips.

Nov. 19.—Adhesive strips removed; plaster-of-Paris bandage applied. On the same day the record says: "No pain or trouble;" (probably because there was no farther attempt to bring the fragments together.—H.)

Feb. 22.—Discharged.

I saw this patient Sept. 29, 1879, nearly 11 months after the accident. He says the plaster-of-Paris was on the limb 11 weeks, and that when it was removed his knee was quite stiff. He used crutches for a time.

When examined by me the fragments were found united by a ligament half an inch in length and so firm that it felt like bone; but there was a marked depression between the fragments, and the fragments could be moved separately, but the motion was very slight. The fragments were somewhat hypertrophied. All the motions of the joints were completely restored, and even in ascending stairs he used both legs alike, but in descending a slight halt was noticeable.

COMMUNICATED FRACTURE, FROM DIRECT FORCE—FIBROUS UNION.

CASE 72.—Frank O'Baine, æt. 32. Fell 3 or 4 steps striking on left patella, June 5th, 1879, and 3 or 4 hours later was admitted to Bellevue—1st Surg., Div. There was already great swelling, over the front and sides of the knee, with marked ecchymosis especially in front of the patella. Pain and crepitus. The fracture was transverse, the lower fragment being broken again vertically. The upper fragment was separated 1 inch, and the lower fragments were separated from each other $\frac{1}{2}$ an inch. Icebags applied. June 13th, swelling diminished. Ice discontinued.

June 16.—The fragments were supported with India-rubber adhesive plaster and roller. The whole limb being enclosed in a plaster-of-Paris splint reinforced by pasteboard posteriorly, and having a window over the joint.

July 7.—Removed the plaster splint. Fragments appear to be united. Movable upon each other. A posterior pasteboard splint applied.

July 11.—Posterior splint removed.

July 18.—Went out on pass and did not return.

SIMPLE OBLIQUE FRACTURE.

CASE 73.—E. M. Freligh, æt. 45. Jan. 3, 1876, fell down a flight of door steps, striking upon his forehead, and upon his knee slightly flexed. He was unable to rise. Admitted to Bellevue, 2d Surg. Div., on same day.

The joint was so much swollen that the patella could not be felt. Lead and opium wash.

Jan. 7.—4th day—first recognized an oblique fracture. A posterior splint was applied, with circular and oblique turns of a roller, leaving the front of the knee exposed, so as to apply lead and opium wash.

Jan. 19.—16th day—swelling nearly gone. A posterior splint was applied, and over this, crossing the front of the thigh just above the patella, a circular band of India rubber tubing. On each side of the leg long adhesive strips were passed under the tubing and brought down the sides of the leg and under the hollow of the foot. He complained at once that the apparatus was painful, and on the following day it became necessary to loosen it (here the record closes.)

SIMPLE TRANSVERSE FRACTURE—FIG-OF-8, AND PLASTER.—ULCERATIONS AND SLOUGH. "CURED."

CASE 74.—John Grey, æt. 41. Admitted May 19, 1875, to 3d Surg. Div., Bellevue, having just received injuries from a policeman's club.

There was found among other injuries a transverse fracture of the patella, caused by a blow from the club, the fragments being separated $\frac{1}{2}$ an inch. He was intoxicated.

A posterior splint was applied and the fragments supported by a figure-of-8 bandage.

May 26.—A figure-of-8 bandage was laid around the limb, with pads above and below the knee, to draw the fragments together, and then a plaster-of-Paris splint was applied from the ankle to the upper third of the thigh. A window being cut over the patella. At first this was left open, but when the swelling subsided a roller was carried over this part.

June 8.—13 days after its application the plaster was removed. The figure-of-8 had caused ulceration above and below the knee. The plaster and other retentive dressings omitted.

June 21.—"Sloughs almost healed," and plaster-of-Paris splint again applied.

July 16.—"Discharged cured."

SIMPLE TRANSVERSE FRACTURE—DIRECT BLOW—FIBROUS UNION—REFRACTURE FROM MUSCULAR ACTION AFTER THREE MONTHS—RESULT UNKNOWN.

CASE 75.—Wm. Baker, æt. 36, fell April 11, 1877, striking his right knee upon a curb stone, causing a transverse fracture. He was sent to Long Island College Hospital, where he remained nearly three months and was then discharged cured.

On the day of his discharge, July 8th, he was walking quickly when he felt his knee give way suddenly, and was taken to Bellevue, 4th Surg. Div. There was not much swelling or tenderness. A temporary dressing was applied, and on the 14th Dr. Mott's apparatus was substituted. Pads made of cork and covered with chamois, beveled on the under surface, crescentic in shape, were placed above and below the fragments. These were held in place

by two pieces of webbing, each six inches wide, and which encircled the limb; they were then made to approach each other by counter strips of webbing, stitched to one of the circular straps and buckled to the other. The fragments were coapted.

Aug. 1.—The above dressing was removed, having been on two weeks. "Upper crescent has slipped over the upper fragment. There is about $\frac{3}{8}$ of an inch separation between the fragments."

Aug. 8.—A figure-of-8 bandage applied, over a posterior splint. (No further record of the case.)

SIMPLE TRANSVERSE FRACTURE—LIGAMEN-
TOUS UNION—
 $\frac{1}{2}$ INCH.

CASE 76.—Catharine Connolly, admitted to Bellevue, 4th Surg. Div., March 27, 1876. Intemperate.

Six weeks before, she fell in climbing a fence and broke her left patella transversely, at the middle. She was taken to Charity Hospital, where a posterior splint and bandage were applied.

On admission to Bellevue the fragments were separated $\frac{1}{2}$ inch. The same treatment was continued.

July 2.—After more than three months discharged "cured."

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE—
UNION BY LIGAMENT OF $\frac{1}{4}$ INCH.

CASE 77.—Mary Seymour, æt. 40, broke right patella transversely April 30, 1866; caused by a fall down a flight of stairs, striking upon the knee.

May 1.—Admitted to Bellevue, 1st Surg. Div. There was extensive ecchymosis and swelling, with great pain. The knee-joint was suffering from acute synovitis and was much distended. Owing to these circumstances the fracture was not recognized until the second day after admission, but the limb was kept extended and at rest. The fragments were then found separated two inches.

May 10.—The same apparatus was employed as in the case of Catharine Connor, namely, the inclined plane and longitudinal adhesive strips.

May 12.—Removed and reapplied.

May 15.—Removed and reapplied.

June 12.—Adhesive strips removed; inclined plane continued.

July 30.—An abscess opened upon back of thigh just below trochanter major. On the same day she was discharged, the fragments having united with a ligament of $\frac{3}{4}$ of an inch.

Mary died in 1874, and up to a short time before death was able to work, only complaining of her knee in damp weather.

SIMPLE FRACTURE—LIGAMEN-
TOUS UNION OF
 $\frac{3}{4}$ INCH.

CASE 78.—Robert Wood, æt. 40, fell March 2, 1866, breaking the patella. He was admitted to 2d Surg. Div., Bellevue, March 7th. On the 8th Dr. Mott's apparatus was applied and the limb kept upon an inclined plane.

March 25.—Apparatus removed; inclined plane continued.

March 28.—Pillows substituted for the inclined plane. Ligamentous union of $\frac{3}{4}$ of an inch—26 days after the fracture.

April 7.—Posterior splint applied and patient allowed to go about on crutches. On the following day discharged.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE.
UNION BY LIGAMENT OF $\frac{1}{4}$ INCH. RUPTURED
THIRTY-EIGHT DAYS AFTER THE FIRST ACCIDENT.
UNITED AGAIN BY LIGAMENT OF $\frac{1}{2}$ INCH.

CASE 79.—Henry Sloan, æt. 30. Received a blow from a club upon his knee, causing a transverse fracture at its middle. He was admitted on the same day, Feb. 27, 1866, to Second Surgical Division of Bellevue Hospital. The fragments were separated half an inch.

Feb. 28.—My inclined plane apparatus applied. Next day it was found loose and was readjusted; with the addition of long adhesive strips laid obliquely along the thigh, and made fast to the foot-board of the apparatus by two lateral cords; the object being to act upon and diminish the contractile power of the quadriceps muscles.

March 23.—Twenty-three days. The dressings were removed, and the fragments were found united by a ligament one-quarter of an inch in length. He was directed to remain in bed without apparatus.

April 6.—Had been walking (fourteen days after the fracture) and fell, rupturing the ligament. My apparatus and the adhesive strips again applied, as before.

May 5.—One month after last fracture, apparatus removed. A posterior splint and knee-cap substituted. Ligamentous union of half an inch.

June 12.—Discharged.

SIMPLE TRANSVERSE FRACTURE—ALMOST NO TREAT-
MENT—LIGAMEN-
TOUS UNION—RUPTURE OF LIG-
AMENT THREE MONTHS AFTER FIRST ACCIDENT—
LIGAMEN-
TOUS UNION OF $\frac{3}{4}$ INCH.

CASE 80.—Ed. Cavanaugh, æt. 24, broke his patella transversely Dec. 27, 1865. He says he had no other treatment than that he remained in bed with a bandage on his leg for a time, and then walked about with a cane.

March 25, three months after the first accident, as he was descending a flight of stairs, his leg turned under him, and he ruptured the ligament. He was admitted to Bellevue on the same day—2d Surgical Division.

March 26.—My inclined plane apparatus was applied.

April 16.—Twenty-two days after the re-fracture. There was said to be ligamentous union.

April 24.—Thirty days after the re-fracture, the apparatus was removed and a posterior leather splint substituted, and he was permitted to use crutches.

May 4.—He was discharged, with a ligamentous bond three-fourths of an inch in length.

(To be continued.)

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EDITED BY

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NEW YORK, SATURDAY, OCTOBER 25TH, 1879.

EDITORIAL.

OVER-ZEALOUS PHILANTHROPY.

"When the climax of a tragedy is reached, the curtain is dropped; and so let me drop this one too. But tragedies have a moral. What is this one? Why, that civilization is a monstrous sham so long as law and public opinion tolerate vivisection. Let it be abolished outright; let him that steals the life of one of God's creatures by any such means know that the doors of the State Prison will close upon him for years, and that the brand of the felon—whose deeds, it may be justly said, are as white as snow compared with his incarnated ones—shall henceforth be stamped upon his brow."

This is the eloquent peroration of America's most noted humanitarian in his latest expression of views regarding vivisection. We admire it for its force of style and for its clever adaptation to its author's design, extracting popular sympathy for his undertaking. We are, however, not so completely carried away in our admiration of its rhetorical beauties, that we do not permit our reason to

fathom the meaning of the speech; we have gone beneath the chosen words and pretty figures of the speech that we might determine truly the foundation of fact upon which they rested. We have mentally translated "tragedies," "steals the life," "State prison" and "brand of the felon" into ordinary English, and we discover that it is the desire of this great philanthropist to have the law so amended that all experiments in vivisection, whatever be their purpose, shall be undertaken at the risk of liberty and character.

To reach this, so grand a peroration, history as written by the disappointed, controlled by envy and jealousy, for centuries, is recalled, and the chiefest triumphs of the science of medicine are disputed; poetry is quoted to show that everybody always knew what was discovered years afterwards, and that we can never learn anything. Magendie is called "a wretch," Harvey an "impostor," and Fyfe "a fiend," in order that vivisection may be robbed of its only charm, its shedding of the light of knowledge for the preservation of humanity.

The extravagance of these statements, defying the best reports; the neglect to furnish a single immediate cause or occasion for censure from our own city, crowded as it is with medical colleges, and the fierce denunciation of men whose whole life was devoted to the alleviation of man's sufferings, prevent the paper from having a logical influence;—farther than to make more clear the truth that "everything looks yellow to the jaundiced eye." Zeal in the noblest cause sometimes does infinite harm, and only the most painstaking should be leaders. This is such an instance; a lifetime has been spent by this gentleman in teaching mankind to regard the brute creation; wealth and power are placed at his service, and he has accomplished much for the defenceless beasts. Now he seeks other worlds to conquer, and seems to be a little over zealous, though he means well. He has certainly erred in his selection of this new field for endeavor.

Anatomy had a violent birth; dissections were considered sacreligious; autopsies but little less than murder, and vivisection is repeating that history. It will be sustained by law and public opinion, as they were finally, as will everything that seeks to benefit the human race.

Philanthropists may lament more loudly and in more public places over the sufferings of animals dying slowly and by piecemeal, that man may live; but they feel no more sorrow than he, who to save his fellow man, causes these sufferings. It is easy and natural to mourn over a suffering brute; it is noble and imperative to exhaust every resource to protect human life.

SELECTIONS FROM JOURNALS.

THE MUTUAL AUTOPSY SOCIETY OF PARIS.

BY

HENRY M. LYMAN, M.D., OF CHICAGO.

Considerable amusement was excited, a few years ago, by the announcement that a society for mutual autopsy had been formed among the savants of Paris, with a view to advancing knowledge of the structure and physiology of the brain by a correlation of intellectual characteristics with *post-mortem* appearances. The whole thing was generally regarded as a scientific joke of more than ordinary magnitude. But the society appears to have been a genuine fact, and one of its members, M. Asseline, having recently deceased, his brain was carefully examined by his surviving associates, who made a full report of the result to the Anthropological Society of Paris. The following account of the matter is found in *Nature*, Aug. 14, 1879, p. 377:

"M. Asseline died in 1878, at the age of 49. He was a republican and a materialist; was possessed of enormous capacity for work, great faculty of mental assimilation, and an extraordinarily retentive memory; and had a gentle, benevolent disposition, keen susceptibilities, refined taste and subtle wit. As a writer he had always displayed great learning, unusual force of style and elegance of diction, and in his intercourse with others he had been unassuming, sensitive and even timid. Yet the autopsy showed such coarseness and thickness of the convolutions that M. Broca pronounced them to be characteristic of an inferior brain. The fossa or depressions, regarded by Gratiolet as a simian character, and a sign of cerebral inferiority, which are often found in women, and in some men of undoubted intellectual inferiority, were very much marked, especially on the left parieto-occipital. But the cranial bones were at some points so thin as to be translucent; the cerebral depressions were deeply marked, the frontal suture was not wholly ossified, a decided degree of asymmetry was manifested in the greater prominence of the right frontal, while, moreover, the brain weighed 1,468 grams, *i.e.*, about 60 grains above the average given by M. Broca for M. Asseline's age. The apparent contradictions between the weight of the brain and the marked character of the parieto-occipital depression, attracted much attention, and the members of the Société d'Anthropologie have been earnestly invited by M. Hovelacque, in furtherance of science, to join the Société d'Autopsie, to which anthropology is already indebted for many highly important observations. This society is forming a collection of photographs of its members, which are taken in accordance with certain fixed rules."—*Chicago Med. Journal*.

MORBUS WINCKELII.

Dr. Winckel describes a new disease which made its appearance among the new-born infants in the Dresden Lying-in Hospital. The disease was epidemic in its character, and lasted, with an intermission of ten days, from March 19th to April 21st.

Twenty-three children were attacked; 19 (82 per cent. died) after an average sickness of 32 hours. Of the other four two were discharged cured, and two with symptoms of disease still left. The age of those attacked varied from one to twelve days, the greater number being on the fourth day. The children as well as the mothers were mostly in a normal condition at the time of the attack; 18 of them were on the breast.

The symptoms of the child first attacked after the intermission were as follows:

The mother was delivered ten days after the last case, and had waited before delivery for one day in the room where the sick child was. The child weighed 4,280 grams; was healthy, and cried strongly. On the second day it was given the breast, but took little and seemed unwell. On the next day the symptoms were quite characteristic. Cyanosis over the whole body; conjunctiva slightly jaundiced, and sighing respiration. The urine was pale brown, and contained hæmoglobin; it was passed frequently, and with considerable straining. The urine contained besides epithelium from the bladder and pelvis of the kidney, casts with nuclei and blood corpuscles, micrococci and detritus, urate of ammonia and albumen. The temperature was normal; in no case was there any fever. The condition of the blood was very remarkable. If a cyanotic spot was scratched no blood flowed, but under firm pressure a little fluid of a blackish-brown color and of syrup-like consistency could be obtained. The blood showed an increase in white corpuscles and numerous small granules (detritus of colored corpuscles), and small particles having a molecular movement. The abdomen not distended, and normally soft. The liver was somewhat enlarged; thoracic organs normal; heart-sounds, somewhat weak. As the disease progressed, convulsive movements appeared first in the extremities and in the muscles of the eye, and finally becoming general, death ensued in a few hours.

Post-mortem appearances. The umbilical vessels were affected in only one case. Liver enlarged and of a dark brown color, and many spots of granular degeneration. Spleen solidified and enlarged; pancreas extraordinarily hyperæmic. The cortical substance of the kidneys was brown, with numerous dark stripes; in the papilla were numbers of infarctus of hæmoglobin. The stomach was always greatly enlarged, swollen out like a balloon, with here and there ecchymoses. Below the duodenum there was a succession of ecchymoses extending over the whole mucous membrane of the intestinal tract; swelling of the Peyer's patches, and enormous swelling of the mesenteric glands. There were ecchymoses in the pleura; in the brain œdema and dilatation of the ventricles, marked hyperæmia and scattered exudations. In some cases there was marked icterus.

As to the ætiology nothing can be said except to point out what was *not* the cause. We may exclude the results of parturition, puerperal infection of the child, poisoning by such substances as morphine, opium, phosphoric acid, etc. It could not be the result of the food nor of the baths (too high temperature) and still less of the clothing and surroundings.

The poison must have been very active, and must

have been absorbed directly into the blood, probably through the digestive organs, and its greatest effects are here to be seen. The name proposed by Winckel is cyanosis afebrilis icterica perniciosa cum hemoglobinuria, but it will doubtless be known by the name of its describer as "Winckel's diseases"—*Deutsche med. Wochenschrift*, 1879, Nos. 24 and 25. *Arch. of Med.*

ON THE CAUSE OF RAPID DEATH AND OTHER SERIOUS ACCIDENTS AFTER THORACENTESIS.

Prof. von Dusch relates one case in his own practice, and quotes six others from recent authors showing that at any time (six days to ten weeks) after a successful thoracentesis the gravest accidents may arise during the process of washing out the sac. Death, hemiplegia, gangrene of the extremities have been observed. Death and paralysis are usually preceded by pallor of the face, loss of consciousness, epileptiform convulsions. The autopsy in several cases (including the author's) has shown the presence of emboli in branches of the pulmonary artery, in the cerebral and other arteries. The sources of the emboli are different. The emboli found in the pulmonary artery of the healthy lung, probably derive from thrombi in the pulmonary artery of the compressed lung, while emboli of systemic arteries are formed from thrombi in the pulmonary veins of the affected side. Clinically, it has been observed that at the time of the fatal occurrence unusual resistance was encountered in passing the tube or in forcing the fluid into the pleura; the orifice was also the seat of contraction. The unusual pressure thus exerted upon the compressed lung, behind the diseased pleura, sets free portions of thrombi which enter the circulations and become emboli.

To avoid these distressing consequences of what otherwise is a simple procedure, von Dusch advises that the greatest care be used to guard against employing unusual force in introducing the canula or catheter, in injecting the fluid, and that every obstruction to the outflow of the fluid be obviated.—*Berlin. klin. Wochenschrift*, No. 35, 1879.—*Arch. of Med.*

HOT WATER IN CHANCROIDS—AND ESPECIALLY IN PHAGEDENIC CHANCROIDS.

Mr. Editor.—I have lately found a new and very valuable therapeutic application of hot water, namely, in the treatment of infecting chancroids, and more especially in that very intractable form—the phagedenic.

My method of procedure is very simple: A piece of sheet lint is made into a pretty solid ball, and being held in a pair of dressing forceps, it is immersed in water not much below the boiling point (in many cases a temperature of 130° or 140°F. will answer), and then this ball of lint is to be pressed forcibly upon the sore. This is repeated daily for several successive days, or until the granulation begin to assume a healthy appearance. As a dressing, simple cerate will suffice, or the sore may be sprinkled with iodoform and covered with dry lint.

The hot water coagulates the albumen in the secretions, and gives to the sore sometimes a whitish appearance, as when nitrate of silver is applied. It is less painful than any of the mineral caustics, and the pain subsides more quickly; and there is no doubt that it destroys the infecting qualities of the sore as thoroughly, while it possesses the great advantage that it does not destroy any of the living tissues.

Yours truly,

FRANK H. HAMILTON.

43 W. 32d street, New York.

—*Va. Med. Monthly.*

INTERMITTENT HEMORRHAGES CAUSED BY MALARIA.

M. Massart (Honfleur) spoke on this topic before the French Association for the Advancement of Science. He quoted a curious case that had recently come under his observation: A lady who had had a tooth extracted by him told him, two days after the operation, that she had lost a great quantity of blood by hemorrhage soon after. Two days later she had another hemorrhage, and, in spite of all his efforts to arrest it, another very considerable hemorrhage took place after an interval of two days more. Struck by the periodical recurrence of these hemorrhages, M. Massart prescribed sulphate of quinine, and the phenomenon ceased.

During the discussion which followed, M. Castan observed that similar cases occurred very frequently in Montpellier.

M. Baréty said that he had frequently observed pulmonary and uterine hemorrhages of miasmatic origin. The pulmonary hemorrhages differed from hemorrhages that were determined by some other cause, both at their onset and end. The blood began to flow suddenly, without any premonitory blood-spitting or taste of blood in the mouth, which symptoms always, as a rule, preceded or followed pulmonary hemorrhages in tuberculosis. He added that, in all such cases, there were more or less slight symptoms of affection of the apices in the lungs.

MALARIA—ITS CAUSES AND PREVENTION.

Col. George C. Waring, Jr. (*Plumber and Sanitary Engineer*), formulates his views as follows: The invasion of salt water to low lands along the river leads to an aggravation of the marsh miasma produced therein. Accumulations of organic matter along the course of running streams, whether caused by slight obstructions of the channel or by dams, may be decidedly deleterious. No body of water, large or small, may safely be retained, of which the level is subject to variation, for the reason that this variation exposes to the air the organic matter deposited along the water's edge, and generally in a state of saturation. While this is emphatically true concerning the actual exposure of organic deposits, it is relatively true with regard to deposits covered by so little water as to bring them within the influence of the sun's rays. Even the obvious wetting of the ground by springs, by the exuding of water through the banks or dams of ponds, or by the too great width of the bottom of the ravine over which

a brook runs may be injurious. The accumulation of leaves, branches of trees, etc., in shaded spots, may lead to danger. The stagnation of air is even worse than the stagnation of water, for the reason that the stagnant air is generally accompanied by the presence of decomposing organic matter, which is sufficiently damp for the worst results. While the heat of the sun may be a source of evil in the case of the saturated edges of a pond and of accumulations of decomposing matter under shallow water, its influence upon the surface of dry ground can be only beneficial. Drainage should, in all cases, be so complete that there can be no water of saturation in the soil nearer than two feet from the surface, except immediately after heavy rains. — *Hosp. Gaz.*

GRASPING THE UTERUS THROUGH THE RECTUM.

This procedure of Simon's, cast into disfavor by the many reports of deaths ensuing from it, has been revived and strongly recommended by Dr. De G. Griffith, as a means of controlling post-partum hemorrhage. He adds a caution, however, against the hasty and forcible introduction of the hand; it should be passed in gently and with boring motion, working in the fingers folded together cone-shaped and well larded, and then the hand narrowed as much as the operator possibly can. The hand once in, and grasping the fundus, no more effectual means can be imagined to arrest uterine bleeding; but where such bleeding is profuse or furious, the slowness of the procedure would render it less available than other well-known methods. Dr. Griffith only urges it as a last resort, and when the choice lies between this and a speedy death from hemorrhage. — *West. Lancet.*

CASTRATION—THE FATE OF YAKOOB BEG'S DESCENDENTS.

The letters from the Shanghai correspondent of the *Times*, drawing attention to the fate reserved for the surviving male descendants of Yakoob Beg, the famous Central Asian chief and Chinese rebel, will doubtless excite much indignation in England, and may be the subject of remonstrance by our diplomatic authorities. It appears that when, in the winter of 1877, Turkestan passed once more into Chinese hands, there were taken prisoners a number of Yakoob Beg's family, some of whom were executed, and others have died. At the present time, there remain in prison four boys, three of them sons and one grandson of the rebel leader. These wretched little boys have been treated like State criminals, and have now been sentenced for the awful crime of being sons of their father. This sentence is to the effect that they are to be delivered into the hands of the Imperial household to be made eunuchs of, and to be afterwards forwarded to Turkestan and given over as slaves to the soldiery. This sentence, ghastly as it is, is the penalty awarded by the Chinese laws in all cases of sedition in which the children or grandchildren of rebels are not themselves privy to the treasonable designs of their parents. If

beneath the age of ten, they are confined in prison until they have reached the age of eleven; whereupon the sentence is carried into effect. So late as the end of 1877, it was inflicted upon a son of a named Li Liu, who was only six years old when his father was apprehended in 1872, and in 1880, a number of boys who were with some rebels when captured, were subjected to it, their elders being beheaded. The operation of castration is mentioned in native histories as early as the 11th century, when it was by exact composition one of the recognized modes of punishment for certain grave offences. Its object, when performed in pursuance of a sentence, appears always to have been purely punitive, not preventive on any theory such as has more than once been broached in England, that criminals of the worst sort should be prevented from founding or increasing criminal families. In China, however, as elsewhere, eunuchs are in general made in order to qualify themselves to act as palace-servants. They may be kept only by certain members of the Imperial family and in the palaces of the eight hereditary princes whose ancestors assisted in establishing the present dynasty. The Emperor has three thousand in his service; each prince of the blood and imperial princess is obliged to maintain thirty, and so on throughout the different grades. The operation is performed at an establishment maintained for the purpose immediately outside one of the palace-gates. For each castration and subsequent care of the case the operators receive the equivalent of £1 16s. sterling. The operation has been thus described by Mr. Stent of the Chinese Custom Service. "The patient is placed in a semi-supine position on a broad bench. One man squatting behind him grasps his waist, and one man is told off to each of his legs. Bandages are fastened tightly round the hypogastrium and inguinal regions, the penis and scrotum are three times bathed in a hot decoction of pepper-pods, and the patient (if an adult) is solemnly asked whether he repents, or will ever repent, his decision. If he appear doubtful, he is unbound and dismissed; but if his courage have held out, as it usually does, all the parts are swiftly swept away by one stroke of a sickle-shaped knife. A pewter plug is inserted into the urethra, and the wound is covered with paper soaked in cold water, and is firmly bandaged. The patient, supported by two men, is then walked about the room for two or three hours, after which he is permitted to lie down. For three days he gets nothing to drink, nor is the plug removed from the urethra. At the end of this period the dressings are changed, and the accumulated urine is allowed to escape. The parts generally heal in about one hundred days, when the patient is inspected by an old experienced eunuch, in order to make sure that the mutilation is complete." For a long time after the operation there is incontinence of urine. About two per cent. of all cases prove fatal—some by hemorrhage, some by extravasation, and some doubtless by irritative fever. Mr. Stent says nothing about obliteration or contraction of the canal of the urethra, although one would expect that the process of cicatrization would frequently produce this accident. The organs removed are embalmed and sealed up in a vessel,

which must be produced for inspection by the proper authority whenever a eunuch is nominated for appointment to any post. When he dies, his organs are buried with him.—*Brit. Med. Jour.*

HOW TO GARGLE THE NASO-PHARYNX.

When the gargle is designed to reach the nasopharynx, Dr. Löwenburg recommends the following method:

The patient inclines the head horizontally backward, and performs movements which we may call "quasi-deglutition," not including the last portion of this physiological action, definite swallowing. The liquid is passed much higher behind the soft palate than the ordinary method of gargling will permit; some persons succeed so well in this manœuvre that they are able to reject by the nose the liquid which has been received by the mouth. Moreover, these rapid muscular contractions completely detach the abnormal secretions, which can then be easily expelled, and the greatest possible relief is thus given to the patient. —*Med. and Surg. Rep.*

EVIDENCES THAT DEAD INFANTS WERE BORN ALIVE.

At the conclusion of a close study of this subject Dr. W. S. Abbott states, in the *Boston Medical and Surgical Journal*, that the medical examiner may infer that a child has lived during and after its birth, from the following signs:

1. When the diaphragm reaches only to the fifth intercostal space.
2. When the lungs more or less completely fill the thorax.
3. When the ground color of the lungs is broken by insular marblings.
4. When, by careful experiment, the lungs are found to be capable of floating.
5. When a bloody froth exudes from the cut surfaces of the lung on slight pressure.
6. When the air cells are visible to the naked eye.

These proofs, complete as they are, may be strengthened by the cicatrization of the umbilicus, the scaling of the epidermis, the closure of the fœtal ducts, the size of the osseous nucleus of the inferior femoral epiphysis, the existence of milk, sugar, starch, or medicines in the stomach, determined by the appropriate chemical tests, and by the presence of fecal matter other than meconium in the lower intestines.—*Med. and Surg. Rep.*

OVARIAN PAIN IN PREGNANT WOMEN.

It is well-known that, in examining pregnant women and trying to ascertain the position of the fœtus by abdominal palpation, the accoucheur will sometimes hit upon a spot which is so tender that a very slight pressure is apt to produce very severe pain. Dr. Budin's attention having been drawn to the subject, he has studied it carefully, and has come to the following conclusion (*Progrès Médical*, March 1st, 1879). The pain is limited to one particular spot, and has never, with one exception, been known to appear spontaneously, but is always caused by

external pressure. On a level with the spot, a small body can be felt moving about under the exploring finger; it is of ovoid form, generally of the size of an olive, and can be moved transversely, though not up and down. If we draw an ideal line from the navel to the anterior superior iliac spine, we find this object either above or under or on the line itself. Dr. Budin thinks it the ovary. In following the back of the fœtus with our finger, we easily provoke the pain and find the ovary. In other cases, it could only be felt rolling under the finger when the uterus was contracted. The contraction having once ceased, it was very difficult to find it again. The left ovary seems to be much more tender to the touch than the right one; the pain is also generally prevalent on the same side. This is probably owing to the position of the fœtus, which lies generally with its back turned to the left and forwards. In two cases, however, where the child's back was turned to the right, the right ovary was painful. It is not yet decided whether this ovarian pain is spontaneously provoked during labor, and whether it can be produced after the ovum is expelled. It is also possible that ovarian pain has been mistaken for a peculiar form of neuralgia which has been called by several authors rheumatism of the uterus, or for the pain which is often caused by the head pressing on the uterine wall. Not one of the women in whom this phenomenon has been noticed was hysterical, so that evidently the pain could only be attributed to the compression of the ovary.—*Brit. Med. Jour.*

A RARE FORM OF DIPHTHERITIC PARALYSIS.

Dr. Dahlerup describes (*Ugeskrift for Lager*, 3rd series, vol. xxvi) the case of a boy aged 12, who, ten or twelve days after recovering from an attack of diphtheritic angina, was seized with difficulty of breathing, which increased to severe dyspnœa at the end of fourteen days. On examination, there was found to be orthopnœa, cyanosis, œdema of the feet, and moderate œdema of the lungs. The heart-beat was somewhat quickened, irregular, and very weak; the area of cardiac dulness was not increased. The heart-sounds were distinct. The pulse was rather feeble. The urine contained a large quantity of albumen. Under the use of digitalis and stimulants, there was a slight improvement at the end of a week; the dyspnœa then increased, as did also the œdema of the extremities and lungs; and the patient became collapsed, and died. The temperature at no time of this illness rose above 98.6° Fahr. Dr. Dahlerup believes the case to have been one of progressive diphtheritic paralysis of the heart.—*Brit. Med. Jour.*

ON STAMMERING.

M. Chervin of Paris read a paper on stammering before the International Congress of Medical Science. This disturbance of speech is generally ascribed to a spasm of the muscular apparatus that aids in the articulation of sounds. This theory, which is essentially false, has led surgeons to perform many unfortunate and useless operations (section of the tongue, or of certain of its muscles, of the hyoglossus; ex-

tirpation of the tonsils, the uvula, etc.). M. Chervin thinks that stammering is caused simply by a disturbance in the co-ordination of the movements that are necessary to emit an articulated sound. This explains how it is that this disturbance of speech is frequently of an intermittent type; and why, under the influence of a methodical treatment, which is in reality only a series of gymnastic exercises, that are practised by the apparatus which helps to form articulate sounds, it is possible to cure this affection in a very short time. The author has gathered from statistics that, from 1850 to 1869, 13,215 young men in France were exempted from serving in the army because of stammering. Great discretion must, however, be exercised in delivering certificates on the subject, as stammering is very easily counterfeited. In general, fright and emotion play a great part in the etiology of the affection. It occurs more frequently in the male sex than in the female, which the author attributes to the fact that young girls are less exposed to violent emotions. The treatment lasts about three weeks. During the first week, the patient has to go through methodical exercises of reading and recitation for a certain number of hours daily; for the remainder of the time, he must be perfectly silent and isolated from his friends. In the second week, he is allowed to speak to his attendants or friends, but must speak very slowly, and pronounce each syllable distinctly. In the third week, the patient may converse freely, but must still speak very slowly.—*Brit. Med. Jour.*

OBITUARY.

DR. EUGENE PEUGNET.

Eugene Peugnet, M. D., one of the most distinguished physicians of New York, died at Fordham, in this State, Oct. 10, 1879, in the 43d year of his age. He had been attending to professional duties at Mt. Vernon, and having completed his round, went to the depot to take a train to his home. Walking along the track, he was so busy with his thoughts that he did not probably heed an incoming train, the locomotive wheels of which crushed and almost entirely severed both of his feet. He was cared for immediately by professional friends of his own choice, who amputated under his direction. He survived but a few hours.

Dr. Peugnet was a graduate of the College of Physicians and Surgeons, N. Y.; served with credit to himself at Bellevue Hospital, 1860; was a surgeon to 71st Regiment, N. Y., during the war. His literary productions were not numerous, consisting principally of papers and reports to the several medical journals of this city. The most remarkable of his productions was a monograph, ably arguing that over-medication, and not the pistol-ball caused James Fisk, jr.'s death.

DR. JAMES GRAHAM

James Graham, M. D., Emeritus Professor of the Practice of Medicine, in the Medical College of Ohio, died in Cincinnati, October 6th, of uræmia.

Dr. Graham was born at New Lisbon, Ohio, in

1818, therefore was sixty-one years of age at the time of his death. He began his professional career in the city of Cincinnati, a stranger in a strange land; his being a graduate of the University of Pennsylvania, was his only letter of introduction. His devotion, his honesty of purpose, his self-reliance and his individuality, surmounted by a pure eloquence soon made him known and respected in his adopted home. He was not given to literary labor, therefore his fame had not reached as far as it might. Those who have heard him in the lecture room, and who have been permitted to hear others in this and foreign countries, more famous, because of their varied talents, have not hesitated to put him above all as a clinical teacher.

NEWS ITEMS AND NOTES.

New Tariff of Fees at Bellevue Hospital Medical College. Matriculation fee, \$1; for all first-year students, \$14; for all second-year students, \$10; for all third-year students, including all graduates of other recognized medical colleges who enter within the term of five of the date of their previous graduation, and including third-year students who have attended two sessions at the college, \$100. Fee for the first year's examination, \$10; for the second year's examination, \$10; for the third year's examination, \$10, for an examination at the end of a session for the first and the second year's session, \$20; for an examination at the end of a session for the three years together, \$30.

Students not desiring to take the full course with reference to graduation, may take tickets for special courses. For first and second-course students, the fees for the separate departments are as follows: Practice of medicine, including psychological medicine, and medical jurisprudence and diseases of the throat, \$20; surgery, including ophthalmology and otology, and dermatology, \$25; obstetrics and diseases of women and children, \$15; materia medica and therapeutics, including pathological anatomy and histology, and diseases of the nervous system, \$20; physiology and physiological anatomy, \$20; general, descriptive, and surgical anatomy, \$20; chemistry and toxicology, \$20.

For all graduates of other recognized medical colleges, irrespective of the date of graduation, and for students who have attended two full courses of lectures, either at the Bellevue Hospital Medical College or at other recognized medical colleges, the fees for the above-mentioned separate departments will be as follows: Practice of medicine, etc., \$15; surgery, etc., \$20; obstetrics, etc., \$10; materia medica, etc., \$15; physiology, \$15; anatomy, \$15; chemistry, \$15.

Students and graduates who have attended the third-year course and all alumni of the college may attend any number of subsequent courses on payment of the matriculation fee.

In order to fulfil, to the letter, the tacit engagements between the college and those students who may attend the session of 1879-80 with the intention of completing their medical studies under the old plan, the following exceptions will be made for such students:

Students who take a full course for the session of 1879-80 will be permitted, other requirements being fulfilled, to graduate at the end of a second full course in 1880-81.

Students who attend their second course in 1879-80, but who do not graduate at the end of the course, will be permitted to attend the course of 1880-81 as third-course students, without payment of fees, and graduate at the end of the session.

Students who attend two full courses at the college in 1879-80 and in 1880-81, but who do not graduate in 1880-81, will be allowed to attend the course of 1881-82 as third-course students, without payment of fees, and graduate at the end of the session.

To summarize the exceptions just mentioned, the new requirements will apply to those only who begin their attendance at the Bellevue Hospital Medical College, either as first-year, second-year, or third-year students, with the session of 1880-81, and students who begin their attendance with the session of 1879-80, may graduate under the old requirements.

A. FLINT, JR., Secretary of the Faculty.

Spectacles for Soldiers.—It is announced that the French Minister of War has authorized the wearing of spectacles by soldiers on duty, subject to certificates of the military surgeon, if then being necessary. Officers, of course, especially necessary in a "territorial army" and under a system of conscription, but it is too reasonable not to recommend itself for general adoption.

American Academy of Medicine.—At the fourth annual meeting of this society, held in New York on September 10th and 17th, about forty new members were enrolled. The next annual meeting will be held in Providence, R. I., on the third Tuesday in September, 1880. The following officers were elected for the ensuing year: Frederick D. Lente, A.M., M.D., of New York, President; Thos. Ryerson, A.M., M.D., of Newton, N. J., Peter Keyser, A.M., M.D., of Philadelphia, Nelson A. Baldwin, A.M., M.D., of Brooklyn, Geo. M. Beard, A.M., M.D., of New York, Vice Presidents; R. J. Dunglison, A.M., M.D., of Philadelphia, Secretary and Treasurer; — Mc Intyre, A.M., M.D., of Easton, Pa., Asst. Secretary; Prof. Traill Green, A.M., M.D., LL.D., of Easton, Pa., Prof. Frank H. Hamilton, A.M., M.D., LL.D., of New York; Hon. Lewis H. Steiner, A.M., M.D., of Frederick, Md., Edward J. Bermingham, A.M., M.D., of New York, Louis Elberg, A.M., M.D., of New York, Council.

Chlorate of Potash from the Dead Sea.—Chemical analysis having long shown that the waters of the Dead Sea in Palestine are rich in chlorate of potash, a company has been formed, and already commenced operations, to extract this salt from its waters. It is stated that in this way chlorate of potash can be obtained thirty per cent. cheaper than by the cheapest process thus far known, and as there is an increasing demand for this salt it is a safe and profitable investment. In order to save fuel, which is scarce in those regions, the works are kept in the most active operation during the dry season, when the water is low and the River Jordan does not dilute them much, the water level varying considerably, and consequently the concentration. This body of water, of course, contains the soluble ingredients from the heights surrounding the whole watershed of which the rains have made a lye, and solar evaporation has concentrated in that sea.

The English *Veterinary Journal* reports that a staff cook having left some pounds of tea in a sack, a Kaffir groom filled it with corn, and serving out the contents to a troop of horses, gave Lord William Beresford's charger the bulk of the tea, which he ate greedily, and produced the most startling results. The animal plunged and kicked and ran backwards, at intervals galloping madly around, finally falling into a donga, where it lay dashing its head on the rocks, and was despatched by an assegai thrust through the heart. The post-mortem appearances indicate extreme cerebral congestion. The phenomena exhibited were characteristic of the action of caffeine—namely, cerebral excitement, with partial loss of sensibility, convulsion and death.

Dr. Frank H. Hamilton, Surgical Clinics, Bellevue Hospital.—Dr. Frank H. Hamilton's Surgical Clinics, will commence at Bellevue Hospital, on Wednesday, Nov. 5th, at 2:30 P. M., and continue eight weeks, same day and hour each week. They are open to medical men, and to the students of all the colleges. The first clinic will be devoted to a study of one hundred and twenty or more cases of fracture of the patella. A large number of examples will be brought before the class, by way of illustrating the proper mode of treatment, and the usual results.

ARMY AND NAVY NEWS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S.

ARMY, FROM OCTOBER 4TH, 1879,

TO OCTOBER 17TH, 1879.

Sutherland Chas., Colonel and Surgeon. To report in person to the Commanding General Military Division of the Pacific, for duty as Medical Director of that Division. S. O., 229, A. G. O., Oct. 4, 1879.

Clements, B. A., Major and Surgeon. Granted leave of absence four months. S. O., 228, A. G. O., Oct. 2, 1879.

H. E. Brown, Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to leave the Dept. and apply for one month extension. S. O. 205, Dept. of Texas, Sept. 29, 1879.

A. H. Appel, 1st Lieut. and Asst. Surgeon. To repair to Fort Benton, M.T., to report to the Post Commander for duty as Post Surgeon. S. O. 106, Dept. of Dakota, Sept. 30, 1879.

C. E. Munn, Capt. and Asst. Surgeon. To report in person to the Commanding General Dept. of the Missouri for assignment to duty. S. O. 232, A. G. O., Oct. 9, 1879.

J. A. Finley, 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months. S. O. 230, A. G. O., Oct. 6, 1879.

S. W. Horton, Major and Surgeon. To proceed from Omaha, Neb., to Rawlins, W. T., and report in person to the Dept. Comdr, s.o. 91. Dept. of the Platte, Oct. 11, 1879.

J. R. Gibson, Major and Surgeon. At expiration of his present leave of absence, to report in person to the Comd'g General Dept. of the East for assignment to duty. S. O. 235, A. G. O., Oct. 13, 1879.

M. K. Taylor, Capt. and Asst. Surgeon. To accompany 2d detachment of the 4th Cav'y., from Ft. Clark to Ft. Hays, Kans., and return to proper station upon completion of this duty. S. O., 211, c.s., Dept. of Texas.

H. E. Brown, Capt. and Asst. Surgeon. Leave of absence extended one month, s.o. 111, Div. of the Missouri, Oct. 13, 1879.

R. S. Vickery, Capt. and Asst. Surgeon, assigned to duty at Fort D. A. Russell, Wy. T., S. O., 92, Dep't. of the Platte, Oct. 11, 1879.

P. Middleton, Capt. and Asst. Surgeon. Assigned to temporary duty, as post surgeon, at the Post of San Antonio, Tex. S. O., 211, Dep't. of Texas, Oct. 7, 1879.

J. P. Kimball, Capt. and Asst. Surgeon. Confirms order of Oct. 1, '79, directing him to proceed to Rawlins, Wy. T., for duty in the field. S. O., 91, C. S., Dep't. of the Platte.

C. DeWitt, Capt. and Asst. Surgeon. Confirms order of Oct. 1, '79, directing him to proceed to Rawlins, Wy. T., for duty in the field. S. O., 91, C. S., Dep't. of the Platte.

Byrne, Chas. B., Capt. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to New York City and, on arrival, report by letter to the Surgeon General. S. O., 235, C. S., A. G. O.

Comegys, E. T., 1st-Lieut. and Asst. Surgeon. Relieved from operation of par. 7, S. O., 210 c.s., from these H'dqrs. S. O., 211, c.s., Dept. of Texas.

Turrill, H. S., 1st-Lieut. and Surgeon. Relieved from duty at Fort Columbus, N. Y. H., and assigned to duty at Madison Barracks, Sackett's Harbor, N. Y., S. O. 182, Dept. of the East, Oct. 16, '79.

Kilbourne, H. S., 1st-Lieut. and Surgeon. To report in person to Comd'g General Dept. of the East for assignment to duty. S. O., 235, c.s., A. G. O.

E. B. Moseley, 1st Lieut. and Asst. Surgeon. Having reported in person relieved from duty at Fort Robinson, Neb., and to report in person to the Dept. Comdr at Rawlins, W. T. S. O., 89, Dept. of the Platte, October 6, 1879.

V. Biart, 1st Lieut. and Asst. Surgeon. Granted leave of absence for one year on Surgeon's certificate of disability, to take effect Oct. 1st, 1879. S. O. 232, C. S., A. G. O.

H. J. Phillips, Capt. and Asst. Surgeon. Died in New York city on Oct. 10th, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING OCTOBER, 17th, 1879.

P. A. Surgeon, A. M. Owen detached from the Marine Barracks, Washington, D. C., and ordered to the U. S. S. Ashuelot, per Steamer of Nov. 15th.

Surgeon J. H. Kidder, ordered to the Marine Barracks, Washington, D. C.

P. A. Surgeon P. Fitzsimmons to be detached for the U. S. S. Ashuelot on reporting of his relief. Dr. Owen, aid to the Naval Hospital, Yokohama Japan.

P. A. Surgeon A. M. Moore, detached from the Essex and waiting orders.

Changes in the Faculty of the University of Maryland.—Prof. Frank Donaldson has resigned the chair of Physiology and Hygiene in the University of Maryland, and will in future occupy the Chair of Clinical Professor of Diseases of the Throat and Chest. Prof. F. T. Miles will fill the Chair of Physiology and Anatomy, in addition to his duty as Clinical Professor of Diseases of the Nervous System.

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

TWO CLINICAL LECTURES ON DISEASE OF THE SPINAL CORD AND ITS ENVELOPES IN THE CERVICAL REGION.

Delivered at the Philadelphia Hospital.

BY

CHARLES K. MILLS, M.D.,
Neurologist to the Hospital.

LECTURE II.

(Reported for THE HOSPITAL GAZETTE and Revised by the Lecturer.)

THERMOMETRICAL OBSERVATIONS—SPINAL HEMIPLEGIA.

GENTLEMEN:—The changes in temperature in cases of disease or injury of the cervical spine are worthy of study. Several series of axillary observations have been made on the case on which I lectured last week and which I again bring before you, the records of two of which I will now read. Every effort was made to insure accuracy and reliability. The thermometers were carefully tested instruments; they were kept in position fully ten minutes; and the observations in each series were made at the same hour every day. For the first series I am indebted to the assistance of Dr. Dillon, resident physician. The temperatures were taken at ten o'clock every morning:

		Rt. axilla.	Lt. axilla.
May	12.....	98.2	97.3
"	13.....	99.8	98.2
"	14.....	96.4	96.2
"	15.....	95.6	96.4
"	16.....	97.2	96.8
"	17.....	95.2	93.8

With a single exception, the temperatures in this table are all below the normal; with a single exception also, those of the left axilla are lower than those of the right. A correspondence will also be noticed in the daily variations of temperatures in each axilla; the temperature on the left rises or falls with that on the right. Some of the temperatures are strikingly low; for example, 95.6° on the 15th, in the right axilla, and on the 17th, 95.2° in the right and 93.8° in the left. The average temperature in the right axilla for the six days was 97°; in the left, 96.4°.

Dr. Bell, resident physician, has carefully taken the following observations at 9 o'clock every morning:

		Rt. axilla.	Lt. axilla.
July	21.....	98.0	98.8
"	22.....	98.6	99.4
"	23.....	98.0	97.6
"	24.....	98.4	97.8
"	25.....	98.4	99.0

July	26.....	97.8	98.6
"	27.....	97.8	98.4
"	28.....	97.6	98.4
"	29.....	98.4	98.8

In this table, as in the preceding one, you will observe that the temperature tends to fall below the normal; the tendency here, however, is not so striking as in the former series. Out of eighteen recorded observations, twelve are slightly below the normal, two are normal (98.6°), and four are slightly above the normal. The lowest temperature is 97.6° in the left axilla on the 23d inst. and the same in the right on the 28th. On the 17th of May the temperature in the left axilla was as low as 93.8°. The same general correspondence in the daily variations on the two sides is observed here as in the former series, the right and left temperature rising and falling together, although not with absolute uniformity. A notable difference between the two series is, however, observed; with two exceptions, the temperatures of the left axilla are *higher* than those of the right; whereas, in May, the reverse of this was true. On the exceptional days the observations were repeated with the greatest care, but with the same general result as in the first instance. The average temperature in the right axilla for the nine days was 98.1°; in the left, 98.5°.

In connection with the observations made upon this case, a brief presentation of some published facts and reviews may prove of interest.

Many experimental and pathological facts have been reported in regard to the changes of temperature which occur from disease or injury of the cervical spinal cord. Nearly half a century ago Brodie recorded a case of this kind in which an enormous rise of temperature took place. In the *Lancet* for March 6, 1875, one of the most remarkable cases ever brought to the attention of the profession was published by Mr. J. W. Teale. The axillary temperature several times reached the incredible height of more than 122° F. Some of these facts, in regard to temperature and the views held with reference to them, are compactly presented by Erb, under the head of General Symptomatology, in Vol. XIII of *Ziemssen's Cyclopædia*.

Fischer has shown that an injury of the cervical cord produces no rise of temperature if the anterior columns are spared. Naunyn and Quincke found that crushing of the cervical cord uniformly raised the temperature, if peripheral cooling was prevented.

The view of Erb in regard to the influence of cervical lesions upon temperature seems to be a sensible one, and affords an explanation of contradictory cases. He assumes, with Naunyn and Quincke, the occurrence of a paralysis of certain paths which serve to restrict the production of heat. "At the same time, however, an extensive vascular paralysis takes place, whereby an increased amount of heat is given off, which more or less compensates for the increased production. According to the preponderance of one or the other factor, the rise of temperature will be more or less considerable, or may be absent or even a minus quantity."

The *Lancet* for August, 1875, contains a lecture by Jonathan Hutchinson on the *Temperature and Circulation after Crushing of the Cervical Spinal*

Cord. I will recall for you in condensed form some of the facts and arguments contained in this lecture. Hutchinson thinks we may consider as fairly established such facts as the following:—(1) Division or injury of a purely *motor* nerve (muscular) does not cause either increase or diminution of temperature. (2) He quotes Claude Bernard's conclusion that loss of temperature results from paralysis of sensory nerves. (3) All experimenters agree in stating that paralysis of vaso-motor nerves permits relaxation of blood-vessels, floods the part with blood, and thus, other things being equal, increases the temperature. He emphasizes in thermometrical observations, the importance of taking cognizance of the stage of the paralysis. I am prepared from my own experience to endorse the value of this advice. He suspects that after almost all nerve-lesions, whether mixed, sensory motor, or vaso-motor, a low temperature eventually results. The case upon which his lecture is chiefly founded showed some wonderful features. The cervical spine had been fractured though the body of the fifth vertebra, and the cord crushed at that level. The patient's surface was almost as cold as that of a corpse; and yet his cheeks, lips, and ears were florid. His axillary and rectal temperature was 95°. Other cases are given in some of which, the temperature was elevated, and in others depressed, after crushing of the cervical cord. In one instance the temperature before death fell as low as 81.7°; in another it reached 82°. He suggests as a possible explanation for some of those cases in which the vaso-motor paralysis stage is attended by coldness instead of heat, that the parts of the body paralyzed—five-sixths of the whole in instances of cervical crushing—become a kind of refrigerator to the blood; just as a man having one cold limb, through which his blood must pass, would experience a proportionate cooling of all his blood, and just as with an inflamed arm, we find that the temperature of the whole blood is raised.

Let us apply some of the points here brought out to a study of our case. The depression of temperature may be partly accounted for on Bernard's view that loss of temperature results from sensory paralysis, the symptomatology of the case showing the sensory columns and nerves to be largely affected. This view would also accord with the idea of Fischer that a rise of temperature only occurs when an injury to the cervical cord falls upon the anterior columns. Here probably the anterior columns have been spared, while the posterior have suffered severely; hence, the tendency is to depression rather than to elevation of temperature. As Hutchinson, however, remarks, and as I am myself aware of from experience, the stage of the paralysis, or the lapse of time after the reception of an injury or the inception of a disease, must be taken into consideration. It may be that early in the history of one case, before she came to this Hospital, an increase of temperature was present. Nearly a year has passed by since her unfortunate accident; and she was not under my care for more than six months after the injury was received. The differences in temperature on the two sides of the body are not easy to explain. They are probably dependent, in a measure, at least, on the irregular localization of the lesion on variations in its amount and extent at

different points on the two sides of the cord. Permanent changes in the organic pathological condition, or temporary alterations, vascular or otherwise, may account for the differences at the periods at which the two series of observations were made. A question for thought is whether after all the temperature changes are due to an interference with conducting channels, or to impressions conveyed from foci of irritation to heat-centres in the medulla oblongata or higher regions of the brain.

SPINAL HEMIPLEGIA.

Occasionally we meet with a case of disease of the cervical spinal region in which only one lateral half of the cord is affected. If the lesion is strictly limited in this way, typical spinal hemiplegia is the result. The main symptoms of this affection are motor paralysis of the arm and leg on the side of the lesion, and anæsthesia of the opposite limbs. Sensory fibres decussate in the spinal cord soon after entering it, while the motor tracks cross at the anterior pyramids of the medulla oblongata, descending in the cord on the side of their emergence; in which physiological facts we have a simple explanation of the peculiar motor and sensory phenomena presented by such a case. I well remember an excellent illustration of spinal hemiplegia which I had the pleasure of studying at the Hospital of the University of Pennsylvania in the service of Professor H. C. Wood. In concluding my lecture I will briefly recount this case.

The patient was a man about forty years old, with a history of syphilis. Eight months before applying for treatment he had had an attack of typhoid fever; soon after recovering from which he began to suffer with pains, first in the right shoulder, and a little later in the back of the head and neck. Anæsthesia on one side and paralytic symptoms on the other gradually appeared. When he came under observation the slightest jar would produce great pain in the neck and head; and pain was also caused by deep pressure over the sides of the second and third cervical vertebræ, and by the application of a weak faradic current to the same locality. The right pectoral muscle was in a condition of tonic spasm. The right arm and leg were slightly wasted and were decidedly paretic; they presented no contractures, but he had a limping gait from weakness of the leg, and the grip and general strength of the arm were much decreased. On the left half of the body below the neck he had loss of the sensations of touch, pain and temperature; he could not distinguish between the compass points at their greatest distance, and could not tell the difference between hot and cold water applied to the arm, trunk and leg of the left side. Electro-muscular sensibility was also much lowered; he expressed himself as being able to stand a faradic current all day on the left leg, which he could not endure at all on the right. Electro-contraction, on the other hand, was a little better on this side than on the right. His bowels were obstinately constipated and his urine passed slowly. His sexual powers were lessened; coition was performed slowly and with difficulty. Attacks of dyspnoea and palpitations occurred occasionally. He had no facial paralysis.

The case was decided to be, in all probability,

one of incipient caries of the second and third cervical vertebræ, with also a limited cervical meningo-myelitis, confined chiefly to the right side of the cord. The patient was greatly improved by treatment, and passed from under observation. An apparatus was ordered to lift the weight of the head from the diseased vertebræ. Large doses of iodide of potassium and the bichloride of mercury were administered, and repeated applications were made to the back of the neck with the white hot cautery. I recall a fact of a little therapeutical interest in regard to this case, which was that a warm, dry cloth, applied to the occiput, neck and shoulders, would temporarily relieve pain more quickly than anything else.

To Brown-Sequard, more than to any other observer, we owe our accurate practical knowledge of unilateral lesions of the spinal cord, both in the cervical and other regions. The subject has been thoroughly treated of by him both experimentally and clinically in numerous publications. When the lesion localized to one lateral half of the cord is situated below the cervical portion of the cord, instead of spinal hemiplegia, we have the affection known as spinal hemiparaplegia, in which paralysis and hyperæsthesia in one lower extremity stands out in strong contrast to the anæsthesia and retained muscular power in the other.

ORIGINAL ARTICLES.

A STUDY OF ABOUT ONE HUNDRED AND TWENTY CASES OF FRACTURE OF THE PATELLA.

BY
DR. FRANK H. HAMILTON.
Visiting Surgeon to Bellevue Hospital, et

(Second Paper—Continued.)

COMMINUTED FRACTURE FROM DIRECT FORCE—
PLASTER-OF-PARIS SPLINT—ABSCESS—RESULT UNKNOWN.

CASE 81.—Michael Griffin, æt. 48. Fell on edge of curbstone, Jan. 26, 1871. An attempt to extend his leg caused great pain.

Admitted to Bellevue, 3d Surg. Div., Jan. 27th. The patella was found broken into three pieces, first transversely, and the lower fragment vertically. There was a good deal of swelling and ecchymosis. Ordered rest and evaporating lotion.

Jan. 31.—Fourth day. The swelling having subsided, a plaster-of-Paris splint was applied from just above the ankle to the perineum. Where it enclosed the knee, compresses were first laid above and below the knee, and one long one upon the front of the knee, and then the plaster bandages were made to cross the knee in the form of a figure-of-8. The limb, thus enclosed, was laid upon a single inclined plane.

Feb. 3.—Has complained of pain, and the inclined plane was removed, and he was ordered to get up.

Feb. 6.—Sharp pain, with tenderness over the

trochanter—superficial—which proved to be an enlargement of the bursa over the trochanter. (Probably due to the chafing of the top of the splint.—F. H. H.) Tinct. of iodine was applied! (Here the record terminates).

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—FIBROUS UNION—RUPTURE OF BOND OF UNION FROM MUSCULAR ACTION AFTER SEVEN WEEKS—FIBROUS UNION AGAIN OF $\frac{1}{4}$ INCH.

CASE 82.—James Lyon, æt. 35, was admitted to Bellevue Hospital, 1st Surg. Div., March 1, 1878. He stated that seven weeks before he had been thrown down, twisting his leg, and that he felt his knee give way. The limb was dressed at a dispensary, and he was laid up ten days.

Feb. 26, these dressings were removed.

Feb. 28, while walking, he felt his knee suddenly give way, and on the following day he was brought to Bellevue.

There was found to be a transverse fracture of the patella below its middle, and crepitus was present. The knee could be partly flexed. An adhesive plaster "lock-strap" was applied, and a plaster-of-Paris splint from the toes to the middle of the thigh.

March 4.—Plaster splint removed and reapplied.

March 25.—Removed and reapplied.

April 9.—Removed: passive motion employed, and the same splint reapplied with dry rollers. Fragments separated $\frac{1}{4}$ inch.

April 23.—Plaster splint removed and leather splint substituted. Movements of joint limited. Went out on pass and did not return.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW.—RESULT UNKNOWN.

CASE 83.—James McCarty, æt. 30, admitted to Bellevue, 4th Surg. Div., Aug. 6th, 1878, the accident having happened on the same day. He had fracture of the patella, transverse, a little below its middle, caused by a direct blow. There was only slight separation of the fragments. The knee was swollen.

Aug. 7.—"Lock strap" applied and a posterior splint, the whole being secured with a silicate of soda bandage.

Aug. 11.—Apparatus removed and re-applied.

Aug. 14.—Again removed and reapplied, and the fragments supported by oblique and circular turns of rollers about the knee.

Sept. 2.—Dressings removed and plaster-of-Paris splint applied. On the 3d of Sept. he was sitting up. (No further record of the case.)

SIMPLE TRANSVERSE FRACTURE—DIRECT FORCE—
BOND OF UNION $\frac{1}{2}$ INCH.

CASE 84.—George H. Briggs, æt. 35, fell upon his left knee Dec. 13, 1873, breaking the patella transversely. When he got up he found he was unable to extend the leg, and he felt a pain over the patella.

Admitted Dec. 14, to 2d Surg. Div. Fragments separated $\frac{3}{4}$ inch. A posterior splint was applied, and the limb treated with lead and opium wash.

Dec. 23.—Swelling reduced. Adhesive strips were applied to keep the fragments in position, and a plaster-of-Paris bandage applied from the ankle to

the middle of the thigh. Jan. 27th, 1874. Directed to "remove splint daily" (probably a back splint, which had been substituted for the plaster-of-Paris.)

Feb. 15.—Discharged, with a bond of union of $\frac{1}{2}$ an inch in length.

SIMPLE TRANSVERSE FRACTURE, FROM MUSCULAR ACTION—RESULT NOT RECORDED. (Probably same patient as preceding, but the fracture was in the opposite leg.)

CASE 85.—George H. Briggs, æt. 35, slipped upon an orange peel and trying to save himself felt the right patella "snap." Admitted March 15, 1874, the day of the accident, to the 2d Surg. Div., ward 7. Fragments separated $\frac{1}{2}$ inch. Considerable swelling.

A temporary posterior splint was secured to the limb, with a figure-of-8 bandage, and lead and opium wash applied.

March 21.—Sixth day, small pads were laid above and below the fragments, and over these adhesive strips, from above and below, reinforced by broad bands, so as to keep the fragments together. Over this a plaster-of-Paris bandage.

Here the record of the case terminates.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW—RESULT NOT RECORDED.

CASE 86.—George A. Bell, æt. 26; residence unknown. By a fall upon his knee broke the patella and was admitted to the 2d Surg. Div., June 6, 1873.

Fracture transverse at junction of upper and middle thirds. Considerable swelling of joint. Lead and opium wash.

June 18.—Swelling nearly gone. Leg snugly bandaged. Fragments separated $\frac{1}{2}$ inch. (No farther record of this case.)

SIMPLE FRACTURE—"DRESSINGS" ENDANGER THE VITALITY OF THE LIMB—RESULT NOT RECORDED.

CASE 87.—Rudolph King, residence unknown, fell July 27th, 1875, from a third story, breaking his left patella and the inferior maxilla. He was admitted to 2d Surg. Div., Bellevue on the same day. When admitted he was unconscious.

Aug. 1.—Fifth day, "a dressing is to-day applied for fractured patella," (probably plaster-of-Paris.)

Aug. 3.—Dressings removed, "as foot looks very bad." Foot was enveloped in cotton wadding and elevated.

Aug. 5.—Hot water and alcohol applied, and removed as often as it became cool.

Aug. 10.—"Circulation returning." Fragments separated $\frac{1}{2}$ inch. (This closes the record.)

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW, RESULT NOT KNOWN.

CASE 88.—Charles Henry, residence unknown, æt. 21. Fell on his left knee, March 26, 1871, breaking the patella transversely. Admitted on same day to 2d Surg. Div. The fracture was across the middle, and the fragments were separated half an inch. Rest alone was enjoined.

March 27.—Plaster-of-Paris dressing applied from the ankle to the groin. (Here the record closes.)

SIMPLE TRANSVERSE FRACTURE—WALKED TEN DAYS—NOT RECOGNIZED BY THE FIRST SURGEON—FIBROUS UNION.

CASE 89.—Jerry Burke, 27 Rose st., æt. 24. Slipped and fell on the deck of a ship Sept. 11, 1877. Says he was sent to the Jersey City Hospital, and that the surgeon said he had only sprained his leg, and they would not admit him. He walked about till the 21st—ten days—and then went to Chambers Street Hospital, where the fracture was recognized, and he was sent the same day, to Bellevue Hospital, 3d Surg. Div.

Found to have a transverse fracture of the left patella. The limb was secured to an inclined plane with a roller, and fragments held by adhesive strips, "locked."

Oct. 2.—"Lock-strap" removed and two elastic bandages substituted, one passing from above and across the patella obliquely, and the other from below obliquely, and both made fast with buckles to the inclined plane.

Nov. 1.—Above removed and "lock-strap" substituted, and a light plaster-of-Paris splint applied over all.

Nov. 2.—Removed plaster splint. (Kept on only one day.)

Nov. 23.—Fibrous union—seventy-four days. Passive motion.

Dec. 6.—Walks about.

Jan. 7.—Four months. Discharged "cured."

COMPOUND, COMMINUTED "STELLATED" FRACTURE FROM DIRECT FORCE—FIBROUS UNION AND RE-FRACTURE—SEPARATION OF TWO INCHES—THE QUESTION OF FINAL UNION NOT DETERMINED.

CASE 90.—Pat. Farren, residence unknown, æt. 66, June 11th, 1868. A mass of iron rolled upon him, throwing him down, and forcing his left knee against the iron. Admitted to Bellevue Hospital, 3d Surg. Div., on the same day. The fracture was stellated. There was a wound one and a half inches in length, crossing transversely the inferior border of the patella. A finger introduced through this into the joint disclosed the fact that the joint was filled with blood. The limb was laid on a straight splint, Buck's extension, with a weight of five pounds, and cold water dressings were applied.

June 12.—Had a chill.

June 13.—Pulse 104; the weight of extension increased. Quinine and opium.

June 14.—Less extension. Limb elevated.

June 17.—Ecchymosis in popliteal space. Inclined plane. Ten pounds extension.

June 23.—Fluctuation in joint. Extension removed.

July 16.—Wounds healed.

July 30.—Fibrous union. Free motion (forty-nine days).

Aug. 25th.—Seventy-five days after the fracture, and twenty-six after the union was said to be consummated, he was carrying a pail of water up the steps in the hospital, when he felt a snap in the knee, and at once lost the power of walking. Admitted to the ward, the fibrous bond was found broken, and the knee much swollen.

Aug. 29.—Discolored.

Aug. 30.—Swelling less.

Sept. 8.—The joint continuing swollen, a sponge compress was applied, and Buck's extension, ten pounds.

Sept. 22.—Sponge removed. Swelling gone. Fragments separated two inches.

Sept. 24.—Straps applied and limbs bandaged.

Oct. 3.—Discharged.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW.
UNITED IN THREE OR FOUR MONTHS.

CASE 91.—Alexander McKay, adult, residence unknown, Feb. 22, 1875. Slipped and fell on left knee, breaking the patella transversely. Feb. 23, taken to the Park Hospital, where a posterior splint was applied, and on the 26th he was sent to Bellevue Hospital, 3d Surg. Div. On admission the fragments were found separated three-quarters of an inch to one inch. Knee swollen. Lead and opium wash ordered.

March.—Plaster-of-Paris splint applied from the toes to above the knee; bandages being carried about the knee in the form of a figure-of-8.

May 27.—Ninety-four days from date of injury, and probably more than two months after the plaster splint was applied, it was cut open. Union of fragments said not to be firm.

On the following day, May 28, a new splint of plaster was applied.

June.—Plaster splint cut open, after having been worn about three months. Union firm.

July.—"Discharged."

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—PERHAPS THE BONE WAS DISEASED—PLASTER-OF-PARIS DRESSING—RESULT UNKNOWN.

CASE 92.—Jane Boyle, residence unknown, æt. 29. June 14, 1874, in descending a flight of steps, not rapidly, her right knee suddenly gave way under her, and at the next step she fell, and was unable to rise.

Admitted to Bellevue, 3d Surg. Div., on same day. Her habits were intemperate, and she had had wandering pains in her limbs, and especially in the knee, for some time. Denied having had syphilis! The fracture was transverse above the middle. The skin was bruised and swollen, and the fragments separated $\frac{1}{2}$ inch. A plaster-of-Paris splint was applied. (No farther record.)

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW.

CASE 93.—Francis Rice, of Long Island City, æt. 43, admitted Jan. 10, 1879, to 3d Surg. Div. On same day, in descending a flight of steps he slipped and struck the outside of his knee against a door. The fracture was transverse; the fragments were separated $\frac{3}{4}$ inch. Crepitus was easily obtained.

Rubber band was employed to hold the fragments in position.

Jan. 13.—The lock-strap was substituted, and a posterior splint applied. (No farther record.)

COMPOUND, COMPLICATED FRACTURE—SUPPURATION IN KNEE-JOINT—GANGRENE—AMPUTATION ON 34TH DAY—DEATH ON SAME DAY.

CASE 94.—John Ardenbach, æt. 45, fell height of one story, Oct. 15, 1870. Admitted to 2d Surg.

Div. same day. Compound fracture of left femur and patella. Limb laid straight, and wound over patella, dressed with lint and collodion. Great amount of discharge from wound over patella.

Oct. 18.—Incision made upon a fluctuating point, but pus not reached. Carbolicized oil dressings.

Oct. 24.—Another incision, but no pus.

Oct. 28.—Chills. Quinine, gr. 7, every three hours.

The chills continued to recur at intervals; he was occasionally delirious; the discharge was abundant and fetid, and on the 13th of Nov. a gangrenous spot was seen below the knee. Meanwhile the quinine had been continued at the rate of gr. 7 every four hours.

Nov. 18.—The gangrene extending and all the symptoms becoming steadily more grave, it was decided to amputate as a last resort. Circular amputation in the lower third of the thigh. Patient did not rally, and died at 8 P. M.

TRANSVERSE AND VERTICAL (COMMUNICATED) FRACTURE—RESULT UNKNOWN.

CASE 95.—John M. Vanderveer, 333 E. 61st st., colored, æt. 25, in jumping from a railroad car while in motion broke the right patella, Oct. 9, 1871. On the following day admitted to Bellevue, 2d Surg. Div. The patella was broken transversely in its middle, and the upper fragment was broken in two pieces, vertically.

A plaster-of-Paris dressing was immediately applied, but it was removed on the 6th day—Oct. 16th, knee-joint suffering from acute synovitis, and a Buck's extension was substituted.

Oct. 18.—Sent to the Colored Home. According to Dr. S. Whittall, in charge at the Colored Home, this man was received and a plaster-of-Paris splint again applied; and subsequently this was removed and a posterior leather splint applied. There are no farther records of the case.

SINGLE, TRANSVERSE FRACTURE FROM MUSCULAR ACTION—FIBROUS UNION—RUPTURE OF UNION SEVEN WEEKS AFTER FIRST ACCIDENT.—PLASTER-OF-PARIS DRESSING—FIBROUS UNION.

CASE 96.—Wm Edwards, æt. 20, residence unknown, slipped and fell May 7, 1869, and was taken to St. Luke's Hospital and limb placed upon an inclined plane. June 3, allowed up with limb raised and resting on a chair. June 14, crutches. June 21, fibrous union—45 days.—Discharged.

Admitted to Bellevue Hospital, June 26, 1869, 3rd Surgical Division.

A few hours before admission to Bellevue he stepped upon a cherry pit on the side walk, and in the attempt to steady himself, felt a pain at seat of fracture.

When admitted, the knee was swollen, hot and painful; the fragments were apparently separated. No crepitus. A straight posterior splint was applied and by his request he was sent to St. Luke's Hospital—Service of Drs. Weir and Hull,—a plaster-of-Paris splint was applied, the fragments being brought together and held until the plaster had hardened.

July 9.—Walking on crutches.

July 17.—Plaster splint removed, and a posterior splint and bandage substituted.

Aug. 13. Discharged, with firm "ligamentous union."

SIMPLE TRANSVERSE FRACTURE—DIRECT VIOLENCE—ERUOUS UNION—FRACTURE AFTER TWO YEARS FROM DIRECT VIOLENCE—ERROR IN DIAGNOSIS—CORRECTED ON 23RD DAY—RESULT UNKNOWN.

CASE 97.—Patrick Gorman, residence unknown, æt. 40, Jan. 17, 1879, fell on right knee. Was admitted to Chambers St. Hospital, and from there sent to Bellevue, 1st Surgical Div. He says that he broke the same patella two years before by direct violence.

On admission there was effusion into joint, general swelling, ecchymosis and pain. Diagnosis not made out. Ice-bags applied.

Jan. 16.—Swelling gone. Diagnosed as a rupture of the tendon of the quadriceps. Tendon drawn up $\frac{3}{4}$ inch. No crepitus. No evidence of fracture. Adhesive plaster strips were laid obliquely from above around the thigh and carried down over the patella. A horse-shoe strip was laid below the patella, and a buckle supplied. The leg being straight on the thigh and the thigh flexed on the body, a plaster-of-Paris splint was applied, open over the knee. Buckling preferred.

Feb. 10.—To-day recognized as a transverse fracture of the patella, at its middle. Fragments separated two inches.

March 22.—Splint removed. Fragments separated nearly two inches. Can flex knee about 10° . (No further record.)

SIMPLE TRANSVERSE FRACTURE, FROM MUSCULAR ACTION.—RESULT UNKNOWN.

CASE 98.—John Halton, 385 10th Ave., æt. 32, admitted to Bellevue, 1st Surg. Div., Sept. 25, 1878. On the same day, while in the act of stepping down ten or twelve inches, at the moment when his right foot touched the ground, his knee being a little flexed, he heard a snap and fell.

The fracture was transverse, at the junction of the middle and lower thirds. Slight effusion into joint, but no ecchymosis. Fragments separated $1\frac{1}{2}$ inches. A posterior splint and ice-bags were applied.

Sept. 30.—Adhesive plasters and elastic straps to support the fragments, and a plaster-of-Paris splint, open in front of the knee.

Oct. 1.—Small sheet-lead and wooden blocks above and below fragments, over which the elastic straps were buckled.

Oct. 11.—Apparatus removed. Strips of adhesive plaster of another form substituted to retain fragments; and a plaster-of-Paris splint supported by a posterior wooden splint applied.

Oct. 18.—Left on pass and did not return. (No further record.)

SIMPLE OBLIQUE FRACTURE FROM DIRECT FORCE—RESULT UNKNOWN.

CASE 99.—Michael Fox, residence unknown, æt. 24, who had suffered amputation of one of his legs five months before and had just left the hospital, fell while walking with his crutches, Dec. 28, 1875, injuring the stump very badly and breaking the patella of the sound leg.

He was admitted to Bellevue, 2d Surg. Div., on the following day. He said he had slipped, and struck the stump upon the flag, and the knee of the other leg, slightly flexed, upon the edge of the curb-stone. The stump was badly hurt, but he felt no pain in the knee at the time, and did not suspect a fracture. The knee became greatly swollen and the fracture was not discovered until several days had elapsed. The fracture extended obliquely downwards and inwards, and the fragments were separated 1 inch. The limb was then dressed upon an inclined plane. On the 11th of Jan., 1876, two weeks after the accident the fragments were separated $1\frac{1}{2}$ inches. (Here the record ends.)

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE, COMPLICATED WITH CONTUSION OF LEG—GANGRENE AND DEATH ON 16TH DAY.

CASE 100.—Allen Block, æt. 45, admitted May 8, 1874, to 2d Surg. Div., having the day before been thrown from a wagon, striking his knee upon the curb-stone. He was taken first to the 99th St. Reception Hospital, where a long side splint was applied, and compresses with "tight bandages" were placed about the knee and splint. When admitted to Bellevue, on the following day, he was found to have a fracture of the left patella, and extensive contusion of the leg below the knee. He was a heavy man, weighing over 200 lb. The limb was permitted to remain in the dressings.

May 9.—Second day; his general condition was bad. Tympanitis, etc.

May 13.—Sixth day; a gangrenous slough forming on the leg, below the knee. Applied a posterior wooden splint, the fragments being supported with compresses and adhesive strips.

May 16.—Slough has extended to the lower margin of the patella.

May 21.—Bed sores. Placed upon a water bed.

May 23.—A free incision made to evacuate pus which had formed in the joint. A free bleeding resulted which was controlled by pressure. A consultation was held for the purpose of considering the question of amputation. It was decided that his condition was such that it could not be entertained. On the following day he died.

AMPUTATIONS OF THE THIGH, HIGH UP, FOR LIMBS CRUSHED BY RAILROAD ACCIDENTS.

BY

J. B. MURDOCH, M.D., OF PITTSBURGH, PA.
Surgeon to the Western Pennsylvania Hospital.

Mr. Erichsen, in the last edition of his *Surgery* (American edition, from the seventh English edition, 1878, vol. 1, page 76), in speaking of the influence of shock in primary amputations, says: "It is often rather referable to the injury than to the operation; and it becomes a question whether, in many cases of serious and almost helpless smash of a limb, it might not be better to let the patient expire in peace, than subject him to the repetition of a shock which his nervous system will be utterly unable to

endure. This is more especially the case in extensive crush and disorganization of the lower extremity up to or above the middle of the thigh, such as are not unfrequent at the present day from railway accidents, in which the mangle of the limb rather resembles that produced by cannon shot than by an ordinary injury of civil life. In these cases amputation through the upper third of the thigh or at the hip-joint is the only available operation. It is usually done in such cases. But is it ever successful in the full-grown adult? That is a question which deserves the serious consideration of hospital surgeons. *I am not acquainted with a single case in which such an operation has succeeded in general hospital practice, in men who have died at full maturity.** In children and young adults it has proved successful. The three cases in which it was done, out of the eighty University College cases, all died of shock. *The same catastrophe has happened in every other case on record with which I am acquainted.* It is an operation that has been abandoned by military surgeons in cases of compound comminuted fracture of the femur from bullet wounds in this situation; ought it not to be equally discontinued by civil surgeons in these more hopeless cases of utter smash of the limb that occur in their practice? For my own part, *I shall never again, except in children and young people, amputate in that situation for such injuries—hopeless alike, whether left or subjected to the knife; but surely better for the patient to be left to die in peace than to be again tortured by amputation, which all experience has shown to be useless.*

Mr. Erichsen is not alone in the opinion here expressed. This practice is taught by some of the professors in our own medical colleges, as I am informed by recent graduates: and it is also the opinion and practice of some of our most excellent surgeons.

This being the case, I ask no apology for reporting the following cases. They are taken from the records of the "Western Pennsylvania Hospital," Pittsburgh, Pa.

CASE I.—J. M. Ellis, æt. 45, drover. Residence, Bellvernon, Wyandotte Co., Ohio. Admitted August 25th, 1872. On the morning of the day of his admission he had started from Sewickley, a station on the Pittsburgh, Fort Wayne and Chicago Railroad, to go to the stock-yards at East Liberty (a suburb of Pittsburgh). Following this train was another train upon which were loaded cattle which belonged to Mr. Ellis. When the train upon which he was reached North Avenue, Allegheny City, it stopped to permit the cattle train to pass. As Mr. Ellis wished to accompany his cattle he sprang from the car upon which he was standing expecting to light upon the moving train. In this he was unsuccessful, and fell between two of the cars, his right lower extremity falling across the rail, several cars passed over his thigh. When pulled out from under the wheels his lower extremity was completely severed from his body.

Dr. James G. Buchanan, Company Surgeon of the Pittsburgh, Fort Wayne and Chicago Railroad, was at once sent for. He found Mr. Ellis at the freight house. He did not seem to be suffering greatly from the shock. The femur had been

crushed off about three inches above the knee joint, and the muscles cleanly stripped from the remainder of the bone nearly to the trochanter major; the muscles were also torn or crushed off above the middle of the thigh. Dr. Buchanan at once, with the assistance of Dr. Rogers, of Allegheny City, and his own son, who was a medical student, amputated the stump at the trochanter major. This amputation was performed half-an-hour after the accident. Mr. Ellis was at once sent to the Western Pennsylvania Hospital, where he was seen by the whole hospital staff. The limb had been amputated, as stated, at the trochanter major. Nothing unusual occurred in the after-treatment. He was discharged from the hospital October 10th, 1872, fifty-four days from the time of his accident. At this time he was able to walk upon crutches, and felt well.

Dr. Buchanan informs me that he saw this patient on the 4th of the present month, and took a ride of six miles with him in a buggy. He is a hale hearty man, very active, and able to carry on a large business as a drover. He still resides at Bellvernon, Wyandotte Co., Ohio.

CASE II.—Charles B. King, æt. 28. Residence, Quincy, Ill. Admitted, July 1st, 1876, at 9 P.M. This man was hurt one hour previous to admission at the Union Depot, this city. He was trying to steal a ride to Philadelphia.

Just after the night express had started he made an attempt to jump aboard. In this he failed; was thrown down, and fell under the wheels, his right lower limb being crushed. He was brought at once to the Western Pennsylvania Hospital, where he was examined by Dr. James McCann, the surgeon then on duty at the hospital. There were also present Dr. Wm. R. Hamilton, Dr. T. C. Rhoads, Dr. W. J. Estep, and myself, all of this city. It was the unanimous opinion of all present that the wheels of the cars had traversed the limb above the knee joint. The femur was severed as if cut by a knife at a point two inches above its lower extremity; the muscles were mangled and torn, so as to lay the rest of the bone bare up to the junction of the upper with the middle third.

The limb was amputated at 10 o'clock, two hours after the injury, by Dr. McCann, assisted by the gentlemen whose names have already been given. It was amputated one inch below the trochanter major.

The patient was discharged, feeling well, and able to walk on his crutches, August 28th, 1876, fifty-nine days after the injury.

His subsequent history is related in the following letter:—

QUINCY, ILL., Sept. 29th, 1879.

Dr. J. B. Murdoch, Pittsburgh, Pa.

DEAR SIR—Your favor of 24th inst. received. The wheel passed over my leg, about two inches above the knee, but the bone was laid bare about 5 or 6 inches above where the wheel passed over the leg, and so I have a very short stump, only three inches of bone, and it is very difficult for me to wear an artificial leg, and I am using crutches altogether, as I can get around on them much more rapidly. I presume you know that I left the hospital in just two months after being hurt, and when I

*These italics are my own.

arrived home I weighed 108 lbs.; my present weight is 100 lbs., and I have not known a day's sickness since I left the hospital. I have never had the least trouble with my stump, and have had no pain in it since it healed up, and it has never opened. I have shown it to several physicians, and they said it was as nice a looking stump as they ever saw. If there is any other information that I can give you, I will gladly do so.

I remain, very respectfully,
C. H. KING.

DOUBLE AMPUTATION—RIGHT THIGH AT ITS MIDDLE
—LEFT LEG AT THE JUNCTION OF THE UPPER AND
MIDDLE THIRDS—RECOVERY.

CASE 3.—Thomas Glenn, æt. 27, native of England, laborer, admitted April 9, 1877. This man was injured by a train of cars on the Pennsylvania Railroad, at a point near where the railroad passes the hospital. He was brought at once to the hospital.

From the appearance of the limbs it was evident that the wheels of a car had passed over his lower limbs in an oblique manner, so that the wheels had crossed his right thigh just above the knee joint, and his left leg above its middle. Dr. McCann, who was present, and carefully examined the patient, says that the marks of a wheel could be discovered on the right femur. Dr. C. B. King, of Allegheny City, at that time on duty as Attending Surgeon, assisted by Dr. Riggs, also of Allegheny City, and Dr. McCann, of Pittsburgh, amputated both limbs, the right thigh at its middle, and the left leg at the junction of the upper with the middle third. Both amputations were performed an hour after the patient's arrival at the hospital, and within two hours of the accident. The patient was not permitted to come from under the influence of the anæsthetic until both amputations were performed. Patient discharged July 2, 1877, eight-four days after his accident. He at once went into the business of peddling stationery, blank books and pencils, about the streets of Pittsburgh, going about in a little wagon. He remained here for about six months, after which he was lost sight of, but is probably still engaged in the same business at some other locality.

I have not in the report of these cases given any of the details of treatment, as my only object in reporting them is to establish the fact: "*That amputation of the thigh, as high up as the trochanter major may be successfully performed in the full grown adult even when the limbs have been extensively crushed and disorganized, up to or above the middle of the thigh.*"

The three cases whose history has been given have been selected from a series of twenty-one cases of amputation of the thigh for railroad injury, treated at the Western Pennsylvania Hospital. Of these ten proved fatal. During the past four years I have myself amputated eight thighs, seven of which were at or above the middle; of these four proved fatal. I believe that the experience of other railroad surgeons in this locality agrees with my own, and that they will coincide with me when I say that Mr. Erichsen has stated the danger in the cases referred to a little too strongly.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

Prepared for THE HOSPITAL GAZETTE.

ABSCESS OF BRAIN.

James M., age 33, carver, was admitted August 6th. Four weeks previously a shutter had fallen on his head, inflicting a contused wound in the left side near the parietal eminence. From the time of the injury he was well, except for the wound, for about twenty days, when he began to have severe headache. He noticed also that there was loss of power in the right arm and leg.

On admission the wound is not quite closed up. His general condition is very good. The bowels had been constipated for six days until the 4th inst., when he took a large dose of salts, which produced watery evacuations. He complains of very severe pain in the head. The left pupil is slightly dilated; the right is normal.

There is slight paresis, together with partial loss of sensation on the right side. His temperature is $105\frac{1}{4}^{\circ}$; pulse 80, full and strong; urine, 1026, alkaline, contains deposit of urates.

Aug. 7.—To-day both pupils are somewhat contracted, the left a little the more. He has had two epileptiform convulsions, beginning on the right side. This afternoon he had a sponge-bath which produced a slight chill and reduced the temperature to $103\frac{1}{2}^{\circ}$. Cold cloths have been applied to the head and three compound cathartic pills administered, producing several movements of the bowels during the day. Potass. iodid. gr. x four times a day was ordered. Temperature A.M., $103\frac{1}{4}^{\circ}$; P.M., $106\frac{1}{2}^{\circ}$.

Aug. 8.—He has had no return of the convulsions. This morning he had an attack of retention of urine, which was relieved by the use of the catheter. He seems more rational than at any time since admission. The pupils are normal, and respond to light. An examination of the heart and lungs gives negative results. Temperature A.M., $102\frac{1}{4}^{\circ}$; P.M., $104\frac{1}{4}^{\circ}$. Urine has sp. gr. 1022, alkaline, contains slight amount of albumen. His breath is very offensive. This morning he spat up a little blood. The treatment during the day has been a sponge-bath every two hours. This morning a diarrhoea set in, and he has had passages as often as every thirty minutes. Bismuth. subnit., 3 ss. every 3 hrs. ordered.

Aug. 10.—He had twenty grains of quinine last night and again this morning. Temperature 6 A.M., $103\frac{3}{4}^{\circ}$; 6 P.M., $101\frac{1}{2}^{\circ}$. This morning he had a convulsion lasting about half a minute. Ice-bag was applied to the head, and he was ordered chloral hydrat. gr. xv potass. bromid. gr. xxx.

Aug. 12th.—Temperature yesterday ranged from 99° to $102\frac{1}{2}^{\circ}$; this morning it is 105° . The pulse is weak and half an ounce of whiskey was ordered. This morning he had a convulsion affecting chiefly the muscles of the trunk and extremities, during which he became pulseless and had apparently stopped breathing. The pupils were contracted, the left more than the right. Artificial respiration was produced and half an ounce of whiskey

injected hypodermically; he rallied and his condition remains about the same as it has been for the last three days. He was ordered half an ounce of whiskey every two hours. During the afternoon he was very much inclined to sleep; he could be roused but went to sleep again almost immediately. He had two or three involuntary loose passages during the night. Says he is free from pain but has a heavy feeling in his head.

August 14th.—During the night had one or two loose passages. The pupils this morning are dilated. The right more than the left. He was wildly delirious during the night. This morning he is quiet but complains of pain in the head. The whiskey was discontinued this morning. He takes a fair quantity of milk. This morning for the first time he vomited a part of it. He was ordered bismuth. subnit., gr. xxx, every three hrs., to have a sponge-bath at intervals of two or three hours.

August 15th.—His condition is about the same as yesterday, but he was rather more restless. He sighs a great deal but says he has no pain. He had an involuntary passage this morning. This morning at 5 o'clock he had a convulsion lasting two minutes. Vomited again. Pulse 128, irregular and rather weak; temperature $105\frac{3}{4}^{\circ}$. He was ordered a bath at a temperature of 80° Fahr., in which he was to remain ten to twenty minutes, according to the manner in which he bore it. The first bath reduced the temperature $1\frac{1}{4}^{\circ}$, the second $\frac{1}{2}^{\circ}$.

August 16th.—Is delirious. Left pupil slightly contracted; conjunctivæ deeply suffused. Temperature $103\frac{1}{2}^{\circ}$, pulse 106 to 128. He seems so exhausted that the bath was discontinued. Had retention of urine for twelve hours, relieved by the catheter.

August 17th.—For the past twenty-four hours he has been very restless. Picking at the bed-clothes, and catching at imaginary objects in the air. Conjunctivæ are deeply suffused. The pupils respond but sluggishly to light. Temperature A. M., $103\frac{3}{4}^{\circ}$, P. M., 105° .

August 19th.—Condition grew steadily and rapidly worse and at midnight he died. Two hours before death the temperature in the axilla was $106\frac{1}{2}^{\circ}$, pulse 120, respirations 36.

Autopsy.—Thirty-eight hours after death. The post-mortem changes were so great that no part of the body except the head was examined. At the seat of the injury mentioned, viz: at the left side near the parietal eminence, there was found a small fracture, the outer table being depressed, the inner broken in a starred manner, and not depressed more than a line. There was some pus in the diploe. The fracture was nearly circular and about $\frac{3}{4}$ of an inch in diameter. The membranes directly beneath the fracture were darkly discolored. On the surface of the brain extending from the seat of the fracture downward and backward, was an abscess about $1\frac{1}{2}$ inches long and 1 inch wide. The process of decomposition had gone so far that nothing else could be made out with certainty.

SOCIETY PROCEEDINGS.

MEETING OF THE NEW YORK ACADEMY OF MEDICINE, OCTOBER 16TH, 1879.

(Reported for the Hospital Gazette.)

The meeting was called to order at 8 P.M., the President, Dr. Fordyce Barker, in the chair. The minutes of the two preceding meetings were read and adopted. Diplomas of membership were awarded to Drs. William H. Welch, P. L. Chambers, D. H. Milhau, Clement P. King, Glover C. Arnold, John Shrady, and Edward Saunders, some of whom were present and were introduced to the members. The librarian reported that since the last report 900 bound volumes and over 4,000 unbound volumes had been added to the library. Among the works thus presented were a complete set of *The Lancet*, from its commencement down to the present time, comprising 110 volumes; a set of the publications of the New Sydenham Society, 60 volumes; a large atlas of Skin-diseases; 54 volumes presented by D. Appleton & Co.; the library of Dr. N. S. Downs; an autograph letter of Sir Astley Cooper; the Natural History of the State of New York, the library of the New York Dermatological Society, etc.

Dr. Putnam announced another gift of Dr. Abram DuBois, in the shape of a set of books, which were displayed immediately over the president's chair and comprised 550 volumes which had been purchased at an expense of \$1318.28, and included among the many important works Holmes' Surgery, Ziemssen's Cyclopedia, Reynold's System of Medicine, etc.

The following resolutions were read and adopted:

Resolved, That the New York Academy of Medicine accepts from its generous benefactor Dr. Abram DuBois, his gift of 550 books with grateful thanks.

Resolved, That these volumes be kept together in the place they now occupy.

Resolved, That a copy of these resolutions be transmitted to the donor.

A letter was read from Mrs. John Jacob Astor, donating \$200 for the library.

The following resolution was moved and adopted:

Resolved, That the thanks of the New York Academy of Medicine are due and are hereby tendered to Mrs. John Jacob Astor, for her generous donation of \$200 for the library; and that a copy of this resolution be transmitted to her.

Resolutions were also adopted tendering the thanks of the Academy to Messrs. D. Appleton & Co., and to the New York Dermatological Society for the donations.

The following resolution was also adopted:

Resolved, That the thanks of the Academy are due and are hereby tendered to Dr. Fordyce Barker, for presenting a bust of Spencer Wells, a chair and reading-desk to the association.

The Corresponding Secretary read a letter from Dr. Little of London, acknowledging his election as a fellow of the Academy and returning his thanks for the honor.

Report of the section of Practice of Medicine was read.

The resignation of Dr. John J. Mason, of Newport, was read and on motion he was elected a non-resident fellow of the Academy.

A communication was received from the Council recommending that the initiation fee be changed to \$20; also declaring that they believed it inexpedient at present to extend membership to the neighboring cities. The paper of the evening on

CEREBRAL ANATOMY,

by Dr. John C. Dalton, was then read. The speaker (for he did not read), said: The anatomy of the brain is complicated in its details, yet its general structure is simple enough. It consists of gray and of white matter. The gray matter is in two separate divisions; first, that on the external surface of the convolutions, and, secondly, the so-called cerebral ganglia, viz., the corpora striata and the optic thalami. The white matter is a continuation of that of the spinal cord and finally spreads out to reach the convolutions. As the long tracts of white substance came from the cord they pass through the medulla oblongata and the pons varolii. As they emerge from the latter they are arranged in the form of bundles, which are called the crura cerebri. The crus passes to the ganglia and here it loses the form of oblique, parallel bundles, the fibres spread out and form a fan-shaped mass known as the internal capsule, and when they reach the upper surface of the ganglia they spread out in all directions like a crown and form the corona radiata, in this way making connection between the columns of the cord and hemispheres. In the cerebral spinal system there are three distinct deposits of gray matter: first, the gray matter of the spinal cord arranged around the central canal; secondly, that of the cerebral ganglia—the corpora striata and the optic thalami; and thirdly, that of the convolutions. These are connected by white matter, the divisions of which are also three in number, viz.: first, the nerves and nerve-roots; secondly, the crura cerebri; and thirdly, the internal capsule and corona radiata. The ideas now in vogue are based mainly on this primary idea, as elaborated by Meinert and others, that when a nervous impulse travels from within outward or from without inward it must pass through three collections of white matter and three collections of gray. Of these three deposits of gray matter the middle are the cerebral ganglia. They both occupy about the same level, the corpus striatum rather in front, the optic thalami rather behind. The white fibres of the optic thalami are dispersed uniformly among the gray so as to give it a homogeneous appearance, while those of the corpus striatum are arranged in bundles passing between the gray and giving it the striated gross appearance from which it derives its name. The optic thalamus is a whole or entire ganglion, but the corpus striatum is in two parts; one the intraventricular or caudate nucleus, the other is the extraventricular or lenticular nucleus, the latter being deeply imbedded in the white substance of the brain and deriving its name from its resemblance to a lens. Of late years, however, the term corpus striatum has been confined exclusively to the intraventricular portion or caudate nucleus, while the extra-ventricular portion is known as the lenticular nucleus simply.

We cannot say that the internal capsule is formed throughout by the same fibres that come from the medulla oblongata; the opinion of anatomists seems

to be that the latter are lost in the cerebral ganglia, and that the fibres which come out from them are new. Over and above this structure, all the remaining portion of the hemispheres is arranged in loop-like form around the termination of the crus cerebri and the internal capsule. This is much better seen in some of the lower animals than in man; thus, in the brain of the fox all the convolutions are at once seen to be arranged around the fissure of Sylvius. If you compare this with the human brain you will find differences both special and general. The general differences are due to its greater development; thus, the temporal, the frontal, and the occipital lobe are all much further back. Besides this general difference, there are two specific differences: first, the fissure of Sylvius is double, having a posterior and an anterior branch, and between these is a triangular mass called the operculum, under which is a group of four or five convolutions called the Island of Reil, and which is that part of the convolutions which is nearest the cerebral ganglia. There is also a fissure in the surface of the brain which is always met with, and which has nothing corresponding to it in the brain of the fox, called the fissure of Rolando, which crosses the convolutions and seems to produce confusion in their arrangement; but this is only apparent, and is but another instance of the greater development of the white matter in man, causing it to fold over on itself. This general arrangement of the convolutions is best seen in a section of the brain through the longitudinal fissure; this also brings into view the gyrus fornicatus—a convolution which starts at the fissure of Sylvius, makes the circuit of the brain, communicates with the precuneus and the cuneus, and ends almost where it started, enclosing the cerebral ganglia.

I now come to the part which I wish more particularly to bring to your notice, viz.: The *special anatomy of the corpus striatum*. By this we mean only the caudate portion. It is usually described as a gray mass, situated in the lateral ventricle, with a club-shaped extremity directed forwards and occupying the anterior part of the ventricle, and a slender, tail-like extremity directed backward, terminating opposite the end of the optic thalamus. *In reality it is much more extensive.* Three authors only, as far as I have been able to ascertain, have given a correct account of it, and they all wrote about twenty years ago; the clearest of these is Gratiolet. These observations are generally ignored, and Henle, in his work published in 1879, describes it as above. The fact is, *that its form is almost that of a complete ring, surrounding the internal capsule for four-fifths of its extent.* This may sometimes be seen by opening the lateral ventricle throughout its whole extent, and then the curved form may be seen running down to the anterior extremity of the inferior horn. As it makes the turn opposite the end of the optic thalamus it grows smaller in diameter, but at the end enlarges again, and is here interrupted by oblique fibres running from the tænia semicircularis which accompanies the corpus striatum throughout, both occupying above, the floor, and below, the roof of the lateral ventricle. The corpus striatum terminates in a gray mass in the anterior part of the inferior horn of the lateral ventricle and which is called the

amygdala, and generally described as a separate deposit. It is also connected with the gray matter of the convolutions at the base of the brain just in front of the fissure of Sylvius. The reason why it is not easy to see this surcingle shape of the corpus striatum is that the two parts are so distant that they are not noticed, but, if once noticed, they are always seen. In this plate there is seen at the cornu ammonis, at its outer edge, an oval section of gray matter; this is the looped part of the corpus striatum. In such a section it is evident why these sections of the corpus striatum are variable in size, and why they are not always recognized, because, as the fibres of the internal capsule pass outward they are again arranged in bundles, and it is in the intervals between these bundles that the gray matter dips down.

This shows that the corpus striatum repeats inside the hemispheres what is noticed outside.

Dr. Seguin, being called upon by the chairman to discuss the address of Dr. Dalton, said: I regret being called upon to begin the discussion, as I have not had sufficient leisure to study the subject as it ought to be, by actual dissections. Still I would call attention to two points: first, the importance of separating the nucleus lenticularis and the nucleus caudatus. All evidence seems to point to their distinctness and separation; and there is accumulating evidence to show that the caudate nucleus has more distinct relation with motor impulses than the lenticular. Secondly, as to the relation and importance of the internal capsule: it seems to me that if there is any fact which the researches of pathology have established, it is the continuity of white matter between the cortex of the brain and the spinal cord, demonstrated by the facts of descending degenerations. If the white substance near the fissure of Rolando be destroyed by any disease, the corona radiata, the internal capsule, the peduncle, and the medulla oblongata of the same side, and the anterior columns of the cord in the other side will also be found affected. As to the relative importance of the internal capsule and the cerebral ganglia: it was formerly thought that in hemiplegia caused by hemorrhage or disease it was the gray nuclei that were the seat of the lesion; now the tendency seems to be to the belief that it is pressure upon or injury of the internal capsule that produces the paralysis. This idea is also strengthened by physiological experiments on animals; if a stylet be introduced into the brain and the internal capsule be destroyed, motility is interfered with. This all seems to point to the fact that the internal capsule is highly important.

Dr. Janeway said: As to whether the posterior part of the internal capsule is involved in anæsthesia, I have seen cases which throw doubt upon it. In particular, that of a man who died a year and a half after an attack of hemiplegia, with recovery of the leg almost complete, while the arm was somewhat slow in its movement but powerful; there was some rigidity; no anæsthesia. The lesion here had cut the posterior two-thirds of the caudate nucleus, nearly the whole internal capsule, had produced some dropsy of the lenticular nucleus and destroyed part of the optic thalamus, yet there was no anæsthesia. I am inclined to think that the prolongation of

the corpus striatum described by Dr. Dalton is what is commonly known as the fascia denticulata.

If one looks at the lesions of the different parts of the corpus striatum they would seem to prove that they had rather an accessory than a direct relation to motor-power. I have seen cysts in the lenticular nucleus, and limited to it, produce aphasia.

Dr. Welsh said: The researches of Dr. Dalton show that there is still work to be done in the study of the topography of the brain, but this will throw no light upon the course of the nerve-fibres and cerebral localization; for this we must look to embryology, comparative anatomy, and pathology.

The fibres which carry motor impulses pass through the posterior part of the internal capsule; hence we are more apt to find lesions of the posterior part causing disturbances of motility.

Dr. Hammond said: I wish to call attention to one or two practical points: last summer I performed experiments on dogs and found that if a strong steel trocar was introduced into the brain and wounded only the Island of Reil and the lenticular nucleus that a transient paralysis was produced which disappeared in a week or ten days; but if the internal capsule was also wounded there was permanent hemiplegia and some anæsthesia. Lesions of the optic thalamus produce anæsthesia; of the corpus striatum, temporary hemiplegia; of the anterior third of the internal capsule, marked hemiplegia; of the posterior two-thirds of the internal capsule, permanent contraction of muscles and marked derangement of sensibility. If the contractions come on later they are not cerebral but depend on lesions of the spinal cord.

Dr. Spitzka said: I look upon the surcingle of Dr. Dalton as atrophic remains from the lower animals, as I have found it in some brains and not in others. As to the amygdala being the lower end of the surcingle, I think this statement will bear further investigation, as I have found it in some brains to communicate with the claustrum, in others with the temporal lobe. I do not think that the majority of anatomists will agree with the statement that the optic thalamus is uniformly grey, for in some parts it is striated. The arrangement of the convolutions depends upon the shape of the skull; in those that are longer in the longitudinal diameter, the arrangement is longitudinal, while in those whose transverse diameter is greater, it is transverse.

Dr. Dalton, in closing the discussion, said: Dr. Janeway intimated that the curved gray band which I have termed the surcingle is the fascia dentata, it is an entirely different thing; the fascia dentata is much further inside.

As to our having so little to hope for from anatomical researches on the brain, as to its internal structure and that the future light is to come from pathology etc., I believe we have done too much of that already, deducing anatomical facts from physiology; we can prove anatomical facts only by anatomy.

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
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
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EDITORIAL.

OPERATIVE SURGERY CLASSES.

A course in operative surgery should be made a *requirement* in graduation, in every first-class medical college. Subjects are so plentiful and cheap that a course so necessary should be insisted upon by the faculty. If needs be, make it an elementary course, but make it practical. Physicians practicing in cities, so desiring, are usually able to call on a surgeon in case of necessity; but this is not so with our country doctors. If the occupant of the chair of surgery hasn't the time or inclination, let the adjunct to that chair take this branch in hand. In country practice, human life is often sacrificed to ignorance, and the fault lies at the door of the college that made the blunderer a physician, and by reason of his diploma assured the people, who have no other means of knowing, that he was fully qualified to practice medicine. It may be answered that such a special course exists in

every good college. So it does, but is optional with the student. If the student hasn't time in the regular term, put it in the spring term. Lack of time is no excuse for turning out half educated men, that are more likely to do harm than good. Recently a gentleman in the West amputated his first limb and made the flaps on the part which he removed! He may have been a natural born ass, but it was the business of the college who graduated him to find it out, and diploma him as an ass, not as a physician and surgeon. College diplomas are murderous weapons in incompetent hands.

THE COUNTY SOCIETY.

New York is a large place, and contains many physicians. One society where medical gentlemen are to meet for the purpose of reading papers, discussing matters pertaining to the profession, and variously and mutually improving themselves, is not fitted for the purpose. The society should be divided into several societies, all under the direction of the parent organization, and confined to certain districts. The presiding officer could then handle his men to better advantage and get from them more and better work. By this means all the business and opportunities would not be confined to a few, and many worthy men, almost unknown, would be induced to come out of their shells.

Furthermore, the subject of the papers to be read and discussed should be given one week before the time of the meeting in every medical journal in the country.

AMBULANCE SURGEONS.

The ambulance service in New York and Brooklyn is not what it should be. It is theoretically perfect in plan, equipment and the carrying out of detail; imperfect in the matter of active agents. This service was created to meet the demands made upon the hospitals by the many accidents and injuries that occur daily in every large city; accidents and injuries of such a nature that the services of an educated surgeon are required at a moment's notice; a surgeon, able to think and act at once, not on theory alone, but so well versed in his business that he can modify instantly, established surgical rules or principles to meet the exigencies of the case in hand. The ambulance system furnishes rapid information of accident, rapid transit to the place where the surgeon is needed, and a full outfit of instruments, apparatus and medicine, but does not; as a rule, put a properly-qualified man in charge at the critical moment. Thus the proper and commendable effort made is decidedly stultified. In some of the hospitals in this country this important duty is relegated

to the juniors, fresh from college, and knowing as much of practical surgery as a kitten does of the composition of milk. Oftentimes the duty is placed in the hands of a non-graduate. This is the case in one hospital in this city, and notably so of the whole ambulance service of Brooklyn. House Surgeons of hospitals know what botch-work is often done by these incompetents. If blunders, compromising human lives, have not always been made, it is because these men have been peculiarly fortunate. If their botch-work has not appeared in public print it is because of the protecting cloak of fraternal aid, and considerable whitewashing, which is not confined to politics alone. It is not the fault of these young men that they are not fitted for these duties—it is the fault of the men who place them in these positions. They are deserving of blame, however, when they race, wrangle, and endeavor to steal cases from one another with that peculiar zeal that was a leading feature of our old volunteer fire department. Ambulance surgeons should be graduates, should have been in private practice five, or hospital practice two years, and *be paid for their services*, if the public authorities really intend to make proper effort to save imperiled humanity. It is a sickly philanthropy that offers murderous surgery to an insensible cripple, because it is the cheapest, or is gratuitous.

SELECTIONS FROM JOURNALS.

PUERPERAL FEVER TREATED BY BENZOATE OF SODA.

Dr. Lehnebach writes in the *Allgemeine Medicin. Central-Zeitung* that in February last six cases of puerperal fever came under his care. In these cases, artificial interference had been necessary; and all the women were under the care of a very skilful and careful midwife. The source of infection could not be discovered. Three other women, under the charge of another midwife, in whom Dr. Lehnebach was called on to complete delivery by artificial means (one being a difficult forceps-case), were not affected. Of the six cases of puerperal fever, two (a primipara and a pluripara) died in a few days, in spite of the energetic use of quinine and wine. The symptoms were highly febrile, the temperature in the first case exceeding 109° Fahr. He was hence led to try, in the remaining four cases, benzoate of soda, as recommended by Klebs and Letzerich. The result was so remarkable that he believes that, if his experience be confirmed by that of others, benzoate of soda will be as much a specific in puerperal fever as salicylic acid is in acute rheumatism. Of the four patients in question, two were primiparæ and two pluriparæ. In the cases of the primiparæ, he was twice obliged to administer fifteen-grain doses of hydrochlorate of quinine along with the benzoate of soda, as the temperature rose to 105° Fahr. soon

after labor. The action of the quinine was much more decisive than in the fatal cases, where he had given half a drachm; the temperature fell from 106° to 100.4° Fahr. Moreover, the quinine, when given with the benzoate, did not produce nausea; whereas in one of the cases it was almost immediately ejected by vomiting when given alone. Except in one case, the temperature did not again rise above 102.75° Fahr. Dr. Lehnebach says also that he has had much success in the treatment of gastric catarrh in children, and of diphtheria, from the use of benzoate of soda—administered in the latter disease both locally and internally.—*Brit. Med. Jour.*

THE ACTIVE PRINCIPLES OF SQUILLS.

E. Merck (*Apoth. Zeitung*, No. 26, 1879) has made some observations on the constituents of the squill, and has separated three principles, which have received the names of scillipicrin, scillitoxin, and sallin. Professor Husemann of Göttingen has examined their physiological effects; and Dr. C. Moeller has written an inaugural dissertation on the subject. Scillipicrin is a white amorphous powder, very soluble in water, and hence well suited for hypodermic injection. It acts powerfully on the heart, retarding its action, and, in toxic doses (1 to 2 centigrammes in the frog) arresting it in diastole. Scillitoxin is an amorphous cinnamon-brown powder, insoluble in water and ether, soluble in alcohol. Its alcoholic solution leaves a long-continued bitter burning taste in the mouth; and the dry powder is very irritating to the nasal mucous membranes. It is easily but not absolutely soluble in aqueous alkaline solutions. When introduced under the skin of frogs in substance or mixed with sugar of milk, it is readily dissolved and absorbed. It has a far more intense toxic action on the heart than scillipicrin, one-eighth of a milligramme being sufficient to cause death in the frog. It arrests the heart's action in systole. Scillin is a clear yellow, crystalline, tasteless powder, sparingly soluble in water, soluble in alcohol and in boiling ether, from which it is again precipitated in the crystalline form on cooling. Its action on the heart is much less than that of the other substances, but it appears to produce *malaise*, vomiting, etc. Which of the two substances, scillipicrin or scillitoxin, is the more valuable diuretic must be ascertained by clinical observation. The remarkable antagonism of their action on the heart indicates that the use of extract of squill, or scillitin, or of squill in substance, is not the best method of administering the remedy, and that a satisfactory result is only to be expected from the separate use of one of the constituents; scillin, which produces troublesome after-effects, being eliminated.—*Brit. Med. Jour.*

HYPODERMIC INJECTIONS OF FOWLER'S SOLUTION IN CHOREA.

Dr. L. Péroud, Professor of Diseases of Children to the Faculty of Medicine of Lyons, has employed hypodermic injections of arsenic in chorea since 1875. M. Henri Garin describes in his thesis (*Thèse de Lyon*, No. 14) results obtained in thirty-three cases of chorea in children at the Charité

Hospital. In the method followed by M. Pérout, usually four or five drops of pure Fowler's solution are injected into the cellular tissue by means of a Pravaz's syringe. An injection is made every day; sometimes every second or third day. The region preferred for injection is some part where there is loose cellular tissue and few nervous filaments. It is sometimes preferable to inject at the level of muscles most affected. The case related occurred in female children from the age of $4\frac{1}{2}$ to $14\frac{1}{2}$. Among them were recent, old, and relapsed cases; cases of rheumatic, of paralytic, and of cerebral chorea. M. Garin's reason for preferring subcutaneous injections are these: first, they do not give rise to gastric disturbance; second, the curative effect is generally more rapidly obtained; third, only very small doses, administered every two or three days, are needed. Subcutaneous injections cause little trouble in children; they give rise to no local irritation, although sometimes, when the organism has become saturated, slight indurations occur at the punctures. Sometimes intolerance of arsenic is met with; but this is rare, especially in children, who take it very well. Under the influence of hypodermic arsenical medication, rapid amelioration is the rule. At the same time that the chorea advances to cure, the children become fat, the weight of the body progressively increases, and the amount of solid matters excreted by the kidney diminishes. Under the influences of arsenical injections, sixteen cases of chorea ended in recovery, after an average of thirty-two days' treatment and about eighteen hypodermic injections. In these sixteen cases, the treatment was purely arsenical. Of thirteen other cases of chorea submitted to injections of arsenic, and also to various other remedies, ten recovered; but a longer time was necessary. These thirteen were, moreover, almost all old or relapsed cases. Hence it may be concluded that arsenic has more chances of cure in recent and simple cases than in old and inveterate cases. This is contrary to the assertions of Aran and Ziemssen.—*Brit. Med. Jour.*

DEATH CAUSED BY AN ASCARIS LUMBRICOIDES IN THE UPPER AIR-PASSAGES.

Dr. Fürst has published, in the *Wiener Med. Wochenschrift* for 1879, a summary of twenty-four cases of immigration of ascarides into the upper air-passages, from which we quote the following case: A girl, aged 4, had been received into Professor Billroth's hospital for congenital ectopy of the bladder. One evening she suddenly had an attack of suffocation. Thinking that she must have aspirated some foreign body, the author explored the larynx without any result, and then performed tracheotomy, as she had suddenly ceased to breathe. As no canula was at hand, a male catheter was introduced into the wound, but met with some obstacle. It was drawn out and then pushed in again, when it went in quite smoothly. Artificial respiration was then resorted to, but the child died. Two hours after death, a female live ascaris, about nine-

tenths of an inch long, was seen hanging out of the nostril. It is evident that the catheter had been prevented from penetrating into the trachea by the worm, who probably then changed its position and wandered upwards. The *post-mortem* examination revealed a male *Ascaris lumbricoides*, nearly half an inch long in the jejunum. The author gives the following clinical sketch of the *modus operandi* of the immigration of ascarides into the air-passages. As far as concerns the etiology, vomiting, fever, (as a high temperature always quickens considerably the movements of the ascarides), purgatives, abstinence from food—may all be looked upon as favoring the immigration into the larynx. Children are more liable to it than adults. The symptoms are not always the same; sometimes the worm sticks in the glottis, and such cases naturally invariably end fatally within a very short time. At other times, the worm passes the rima glottidis, when the patient dies of bronchitis in the course of a few days. The majority of the cases that have hitherto come under observation belong to the first class. The patients become aphonic and asphyctic; occasionally these symptoms are preceded by hoarseness during a few moments. Then comes a stage of great excitement, anxiety, and profuse sweating, which is followed by loss of consciousness. In cases of the second class, the patients feel much better after the worm has passed through the rima glottidis; but they do not recover their voice, and complain of pain in the anterior part of the throat. The diagnosis is very difficult and uncertain. In young children, the fits of suffocation are often completely masked by convulsions. It laryngitis, croup, diphtheria, spasm and œdema of the glottis, perforation of cold abscesses, or affections of the lungs may be with safety excluded, one is justified in supposing that a foreign body has penetrated into the pharynx or larynx. Then if it can be proved with certainty that no foreign body has been aspirated, and, moreover, if the patients are troubled with ascarides, it may be concluded that the foreign body in the trachea is an ascaris. This supposition will be rendered still more plausible if, after the worm has passed beyond the glottis, the asphyxia decrease and the trachea become painful. If it be not possible to extract the worm, either with the hand or by emetics and expectorants, tracheotomy must be performed. It has been resorted to in three cases out of the twenty-five, but each time with fatal issue. At the necropsy, the worm is generally found in the place where it evidently resided, judging by the symptoms during the patient's life. These places generally bear marks of inflammation, which have been produced either by the mere presence of the foreign body, or by its movements, or else by its peculiar irritating properties. The mucous membrane is red and injected, covered with bloody froth, and in some places eroded. Pneumonia of a circumscribed portion of the lung is sometimes caused by the protracted presence of the worm in one of the bronchi. The inflammatory symptoms are manifested principally in the arytenoid cartilages, as they are much affected by the migrations of the worm from the œsophagus. The usual symptoms of death by asphyxia are also always met with, as well as a certain number of ascarides in the intestines.—*Brit. Med. Jour.*

A RARE FUNGOUS GROWTH ON THE HAIR IN THE AXILLÆ.

Dr. Axel Key described the following case in the *Hættur* for 1878 (quoted in *Archiv. f. Med. Bot.* Arkiv. Band xi.) A gentleman had for some time noticed that the hair in his axillæ stuck together, in consequence of being covered with a glutinous substance. The sweat of the axillæ colored his shirt bright red. His condition in other respects was normal. On examination, Dr. Key found the axillæ hairs greatly adherent; and a large part of them were covered with a gelatiniform substance like mildew. This had its seat on the free ends of the hair, where it formed partly isolated or confluent swellings, and partly bands like chains of pearls, or an adhesive mass surrounding the hairs. There were no changes in the skin. Microscopic examination showed that the changes were dependent on a peculiar fungous vegetation, which had a brimstone yellow color by transmitted light. The development of the vegetation commenced in the form of small, slender, exceedingly delicate scales, which soon formed small round elevations, apparently homogeneous, but containing numerous small glistening spores. The scales seemed partly to lie on the outside of the hair, but for the most part the vegetation penetrated between the outer layer of the epidermis covering the hair. Here and there, the vegetation could be traced to the interior of the hair. No mycelium was found, Dr. Key has not been able to find a similar case recorded in dermatological literature. Buhl alone has described in the *Zeitschrift für rationelle Medicin*, Band iii, a new hair-fungus apparently like that described above; he calls it *zooglœa capillarum*. The disorder would, therefore, seem to be very rare.—*Brit. Med. Jour.*

NEWS ITEMS AND NOTES.

We are in receipt of a circular from Mr. Charles H. Warren, the celebrated contortionist, in which are published letters and opinions from Drs. F. H. Hamilton, D. Hayes Agnew, O. J. Coskery, L. McL. Tiffany, W. W. Dawson, Henry J. Bigelow, C. L. Ford and others, upon the wonderful power exhibited by Mr. Warren of voluntarily dislocating nearly every joint in the body. This is undoubtedly the most extraordinary case of this kind on record, and is fully authenticated by the above-named gentlemen. We have had also the pleasure of seeing Mr. Warren successively dislocate the inferior maxilla, scapula, humerus, elbow, wrist, phalanges of the toes and fingers, knee, patella, ankle, and most wonderful of all, both hip joints, which he effects by a complete control over a magnificently developed muscular system, aided by a congenital relaxation of the joint ligaments. It is Mr. W.'s intention to visit the principal medical schools and hospitals throughout the country during the winter, and no one should lose the opportunity of seeing and studying such a phenomenon.

Dr. Hamilton delivered a clinical lecture on Mr. Warren's case at Bellevue Hospital about a year since, which was published in *THE HOSPITAL GAZETTE* for March 8th, 1879.

The Louisville Medical Journal, and *The American Medical Bi-Weekly*, will henceforth be New York journals, their distinguished editor and proprietor having been compelled to remove to this city on account of ill-health. We have here an exemplification of the old adage—"It's an ill wind that blows nobody good." Dr. Gaillard's illness in compelling his removal to a northern climate has given the profession of this city a talented and cultivated gentleman, and has placed the Doctor in a position not only to regain his health, but to improve his admirably conducted journals. We sympathize with Louisville, and congratulate ourselves.

Dr. F. H. Hamilton's Clinics begin on Wednesday next, at 2½ o'clock, at Bellevue Hospital, and will continue weekly during November and December. The first lecture will be on fracture of the patella and will be illustrated with numerous cases and appliances.

Means of Arresting the Epileptic Attack.—At the *Societe de Biologie* on 5th July, M. Brown Sequard said that he had learnt from a negro, that an attack of epilepsy may be arrested by pulling the great toe. Moreover, he had himself verified the correctness of the fact upon twenty-one patients.

The London correspondent of the *Louisville Medical News* does not put much faith in the prevalent idea that the great metropolitan physicians and surgeons confine themselves in practice strictly to their own department. He says: "Few surgeons refuse good medical cases. When Mr. Erasmus Wilson is asked by a client, 'You go in for the skin, especially, do you not?' He replies, 'Yes, and for all that it (the skin) contains—the muscles and bones, and blood and nerves, and lungs and heart, and uterus, and all the rest.'" The same correspondent further remarks that "manners and machinations, the Sunday School and church dodge, the total abstinence game, and judicious lying and stealing—(lying about skill and success; stealing other men's ideas and putting them in print)—are roads to prosperity no more neglected there than in our own enterprising country."

We would state to those members of the profession, who are not already acquainted with the fact, or have not seen it, that the anatomy of the male genital organ is demonstrated every year at the Coll. of Physicians and Surgeons of this city on a dried preparation of the penis of the renowned Capt. Kidd.

Sign of Death.—Three hours after death, every trace of faradic muscular irritability is found to have disappeared, and the most powerful current will remain absolutely ineffectual; in suspended animation the muscles respond freely to a current of moderate force.

A man was recently convicted of a petty theft before a police court. He had once been a prominent physician, and dated his downward course from the time that he cheated the publisher of his medical journal out of the subscription price. After that, he said, he found that every piece of rascality came easy to him. The moral here needs not be pointed out, and we shudder for the future of some.—*Mich. Med. News.*

The Secretary of St. Mark's Hospital for Fistula, was arrested last week, and charged before the Lord Mayor of London for forgery. Cases were proved against him of misappropriating the funds of the charity by these means, and he was committed for trial.

Prosecution of a Doctor of Medicine for Illegal Practice.—We read in a German contemporary that a duly graduated Doctor of Medicine of a Prussian university has lately been summoned before a court of law for practicing without having passed the *staats-examen*. The charge against him was, that he had affixed in front of his house a large plate, bearing the inscription "Dr. W. Z., Doctor in Medicine, Surgery, and Midwifery," and also on his door a plate inscribed "Dr. Med. Z."; and that he had announced hours during which he might be consulted. Although he showed clearly that he was a Doctor of Medicine and had a right to use the title, he was found guilty of having used it in such a way as to lead the public to suppose that he was a duly recognized practitioner, and was fined sixty marks (§15).

The Degree of Heat Fatal to Tænia and Trichina.—Professor Edward Perroncito of Turin communicates to the *Boston Med. and Surg. Journal* the results of an extended series of experiments on the degree of heat fatal to parasitic helminths and their germs. The cysticerci and scolices of various species of tænia, the trichina free and encysted, the filaria, the strongylus, etc., were made the subjects of careful and repeated observations. He found that they died, without exception, before the temperature of the liquid containing them reached 50° Cent., equal to 122° Fahr. The point of elevation which proved fatal with remarkable uniformity was 48° C., or 118.04° F. Five minute's exposure to a temperature of 50° C. he regards as invariably fatal. The experiment of swallowing the cysticercus after exposing it to that temperature was tried by a number of courageous students, without ever producing a tænia. A much higher temperature has been generally supposed to be necessary for the purpose.

A Riot Among Lepers.—The great Leper Asylum at Mahaica, in British Guiana, has recently been the scene of a riotous outbreak. The necessary strin-

gency of the rules of the establishment, both for the sake of the unfortunate patients, as well as for the sake of the colony at large, has led to frequent difficulties with some of the inmates. The doctor in charge of the Asylum, Dr. Hills, was attacked while on one of his usual rounds, and forcibly imprisoned in one of the rooms, and a leper armed with a razor, kept guard over the door, while the others fell on the officials and servants, and threatened to murder them. Fortunately an alarm was raised, and a large body of police despatched to the assistance of the besieged officials, who had to take refuge in the various rooms and lock themselves in. A hand-to-hand fight ensued, during which the female patients showed even greater ferocity and determination than the men. They were, however, fortunately, unable to find any dangerous weapons, and were eventually overpowered.

Disputed Wills.—Dr. Legrand du Saulle has lately published a book called *Medico-Legal Studies on disputed Wills*, from which we take the following curious incident. The will of Louis Cortusio, a lawyer in Padua who lived in the fifteenth century, is one of the most original in existence. He forbids all his relatives and friends to weep at his burial. He who will persist in weeping shall be disinherited, while he who will laugh heartily shall be his principal heir or universal legatee. He forbids to put up any black draperies in the house in which he shall die, as well as in the church where he is to be buried. Both must be decorated with flowers and green branches on the day of his funeral. There must be no ringing of bells, but gay music. All the musicians of the town shall be asked to his funeral; they are to walk with the clergy, making the air resound with their instruments, and singing Hallelujah as if it were Easter-day. The bier which contains his body is to be covered with bright and many-colored cloth, and borne on the shoulders of twelve maidens of age to be married, who must be dressed in green and sing many songs. The executor of the will must see that all these formalities are fulfilled in their least details; if not, the testament will be declared void. The relatives of the deceased protested against the will, but it was declared valid.

Ice Cream and Beef Juice.—As an excellent dietary article, this is praised by Dr. J. J. Tucker, in the *Chicago Journal*. His formula is; $\frac{1}{2}$ Cream, 120 grams; sugar, 30 grams; extract of vanilla, 8 grams; beef juice, 8 grams. Any confectioner can make it, or it may be readily prepared at home, with a freezer. Its uses are obvious.

[illegible]

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Professor of Pathological Anatomy in the Medical Department of the University of the City of New York, and Surgeon of Bellevue Hospital.

GENTLEMEN : The case to be brought before you to-day is one in which I propose to perform the operation known as excision of the elbow-joint. This operation consists in the removal of the adjoining ends of the bones of the arm and fore-arm, or, to speak surgically, of the lower extremity of the humerus and the upper extremities of the radius and ulna. The operation is one that requires much time for its performance, and I shall therefore confine my remarks to-day to those points which bear particularly upon the present case and the character of the operation.

The motive of the operation is found in the existence of disease of the joint; disease which, although not very active, is very persistent and has produced complete disability of the limb. The patient is a large powerful negro, 35 years old, of healthy antecedents, and a laborer by occupation. Five years ago, without known cause, his right elbow became swollen and tender, and remained so for some time. A year later a similar attack occurred and was followed by the formation of an abscess which opened on the posterior aspect of the lower third of the arm, and remained open for two or three months. Since that time the joint has remained tender, with frequent exacerbations, and the formation of several abscesses, which have healed, leaving in all five scars in the neighborhood of the joint. The last abscess formed last May on the anterior and inner surface of the upper third of the fore-arm, and remained open until two weeks ago.

His right arm and fore-arm are much smaller than the left. The natural depressions of the region of the right elbow are effaced by a moderate swelling. There is no heat about the joint, but it is tender on pressure over the head of the radius and on each side of the olecranon. The skin is normal except for the scars just mentioned. The fore-arm is fixed in the position of flexion at a right angle, and any attempt on my part to change that position causes the patient severe pain in the joint. He is unable to stiffen the muscles of the arm, although he can contract those of the fore-arm vigorously; he is also unable, on account of pain, to sustain the fore-arm unsupported. Grasping the arm and fore-arm firmly

These signs indicate that the joint is partially disorganized, and that its stiffness is due not to muscular rigidity but to thickening of its capsule and, probably, to the formation of bands uniting the articular surfaces. The number, position, and short duration of the abscesses indicate, I think, that they originated in the soft parts and were not due to suppurative caries in one of the bones. In short, the disease is probably a fungous, non-suppurative arthritis, with partial destruction of the lateral ligaments and of the articular cartilages.

Two methods of treatment are open to us: immobilization of the limb; excision of the joint. The best result that can be hoped for from the first is that under its influence the morbid process will diminish and ultimately, after many months, cease, with obliteration of the joint, and the limb permanently fixed in its present position. It is probable, however, that the attainment of this end would be delayed, perhaps prevented, by various complications such as the formation of abscesses and more active disease in the bone itself, which might even endanger his life.

On the other hand, excision offers the chance of a complete restoration of the form and function of the joint. At the worst, it will give a stiff joint by bony or close fibrous union between the cut surfaces of bone; that is, its worst result will be as good as the best that can be obtained by immobilization, and it will be obtained much more promptly and without exposure to the complications involved in the other. The operation itself, under antiseptic precautions, does not endanger the patient's life, and although that is not a reason for performing it, it removes what would otherwise be a formidable reason against it.

The operation may have three different results. It may result in the formation of a flail-joint, of a stiff joint, or of a well-supported joint with active flexion and extension of the forearm. I am fortunately able to show you an example of each kind. (Three illustrative cases were then presented and explained).

These different results show us the defects to be avoided and the conditions essential to success ; and a glance at this skeleton makes those conditions still more apparent. The bones in a normal elbow-joint have a broad surface of contact, and glide forwards and backwards upon each other, like the arms of a hinge, while motion towards one side or the other is prevented by the strong ligaments passing from each side of this expanded end of the humerus to the radius and ulna. In front of and behind the joint we have loose ligaments which are put upon the stretch and become restraining only when the limits of the normal movements of the limb are reached. It is essential that a new joint formed after excision, should have the same support, the same restraint upon the sides, and the same freedom in front and behind. The attachments of the muscles that move the forearm must, of course, be preserved, and its bones must rest against the humerus in order that its movements shall take place about a fixed and steady centre. The defects in the first two

cases shown you were due to a failure to meet one or the other of these conditions. In the first one the ends of the bones were separated by an interval of nearly two inches, the consequence was the extreme mobility in all directions possessed by the forearm, a mobility entirely beyond control by the muscles of the arm. The second case represented the opposite extreme; the bones were close together and well supported on the sides, but motion was prevented by cicatricial bands in front and behind.

Now, how are these necessary conditions to be realized? How can we obtain fixation on the sides and freedom of motion in front and behind? We can do it most easily and surely by the same means that nature employs; that is, by preserving the ligaments upon the sides and the synovial capsule in front and behind, and attaching them again to the bones, after their ends have been sawn off. The operations by which this result is sought to be accomplished may be conveniently divided for our present purpose into two classes, the one comprising those in which the periosteum is removed with the bone, the other those in which it is preserved. The former method is the one most frequently used in the past; the latter, known as the *sub-periosteal* method, is of comparatively recent introduction, and is the one I shall employ to-day. In the old method the joint is opened by an appropriate incision, the ligaments are divided as close to their attachments as is convenient, and the ends of the bones are separated from the over-lying soft parts and sawn off. There is thus created a cavity, a large part of whose surface is raw, and composed of muscular and connective tissue, and into this cavity project the cut ends of the bones. This cavity fills up with a mass of granulations which are not limited externally by its surface, but spread into and transform the adjoining soft parts to an extent that varies with the intensity of the process and the prolongation of the period of repair.

The fibrous tissue into which these granulations finally develop forms an inextensible cylindrical mass, in which are embedded the ends of the bones, themselves more or less modified in form by the ossification of those portions of the mass which immediately adjoin them. The character of the new joint depends upon the length of this mass of fibrous tissue; if it is long enough to allow motion it is too long on the sides to give adequate lateral support to the bones; and if it is short enough on the sides it is too short in front and behind to allow motion. It is a fact, nevertheless, that a good result is sometimes obtained by this method, and this is most likely to be the case when the capsule of the joint has not been thickened by disease or prolonged suppuration, and when the cut end of the humerus grows downwards on the sides so as to form a sort of mortice into which the bones of the forearm are received.

In the sub-periosteal method the joint is opened by an incision, the periosteum divided longitudinally and stripped off the portions of bone that are to be removed, care being taken to preserve its continuity with the capsule and ligaments. The cavity left in this case is limited by the sheath of periosteum and the capsule. Granulations form within this sheath as in the other case, but they are prevented by it from infiltrating the adjoining tissues, and their os-

sification is favored by the presence of the periosteum, which also tends to give this new bone the shape of that which has been taken away. And, finally, as the lateral ligaments are preserved and are continuous with this periosteal sheath, they become adherent to the new bone at points corresponding to their former attachments. In short, the joint is reconstituted with much of its original form and character. The danger in this method is that the growth of bone may be excessive or irregular and interfere with motion, but experience has proved this danger to be a slight one.

The elbow-joint is covered in front by thick masses of muscles, amid which lie important vessels and nerves, while it is much more superficial behind, and is there crossed by only one nerve, the ulnar nerve, which passes between the olecranon and the internal condyle of the humerus. It must therefore be approached from behind and by a longitudinal incision which may be made in the centre of the posterior aspect, splitting the triceps and passing along the middle of the olecranon, or on the outer side just behind the tip of the external condyle, passing in its upper portion between the triceps and the supinator longus, and then either crossing over to and following the olecranon or continuing directly downwards over the head of the radius. Both of these incisions have given me good results, and in this case I shall use the second one, the postero-external, supplementing by a short second incision on the inner side, for I desire to remove only a short piece of the humerus and to save, if possible, a portion of the olecranon. The patient is a laboring man, and it is therefore better that the joint should be too stiff than too loose, and his age is such that we cannot expect much reproduction of bone.

I shall use the antiseptic method of protecting the wound during the operation and the period of recovery from it. That is, I shall use the carbolic spray; everything that is to touch the wound will be washed in a carbolic solution; bleeding vessels ligated with carbolized catgut or silk; the wound will be closed with carbolized catgut and horsehair sutures, and finally the limb will be enveloped in carbolized gauze. I shall pass a drainage tube through the second small incision made on the inner side, and I shall close the principal incision entirely by two rows of sutures, one deep row of catgut along the line of division of the periosteum and capsule, the other, a superficial row, of horsehair along the skin; by this means the two sides of the incision will be kept in contact throughout the entire breadth of their surfaces, and their primary union, I think, greatly facilitated thereby.

ORIGINAL ARTICLES.

EXCISIONS.*

BY
ISAAC S. WARREN, M.D., DANVILLE, KY.

Mr. President and Gentlemen of the Kentucky State Medical Society:

It is the duty of the surgeon in the treatment of

*Read before the Kentucky State Medical Society at its last meeting and ordered to be published.

disease of all the articulations, next to the saving of life, to keep intact their movements. After all hope is gone, then to preserve the limb with a stiff joint. A stiff joint in the lower extremities is better than none, and even in the shoulder or elbow at a proper angle is a very useful member. When the above means have been tried and found unsuccessful, the next step to be considered is one of an operative procedure. There are three methods open to us: amputation, excision, or the expectant method. The surgeon who has great faith in surgical treatment will excise, whilst on the other hand another looks upon this process as too exhausting, will amputate; a third, who has much faith in the *vis medicatrix naturæ*, will wait. There are four very important rules laid down by Mr. Holmes, which are to determine us in performing excision of joints, viz.: 1st, the situation of the bone or joint to be excised; 2d, the state of the patient as to general health, constitutional affection and age; 3d, nature and extent of the disease; 4th, the various extraneous circumstances. Any excision in the upper extremities that promises a patient mobility of either the elbow, hand, or the fingers, is decidedly better than amputation. In the hip-joint, when it has been in a state of chronic disease, excision is preferable to amputation, and even in gun-shot of that joint, where excisions and amputations have been performed, the mortality has been somewhat greater in the latter. The knee-joint being the largest articulating surface in the body, the results from excision, except for chronic disease and ankylosis are very unsatisfactory, and even in this class of cases, where the patient is able to provide himself with an artificial limb, I would prefer amputation to excision. The statistics of gun-shot wound of the knee-joint, in which excision was practised, are unfavorable to this operation. There were no successful cases reported during the wars of the Crimea nor Schleswig-Holstein. During the Italian war of 1859 three out of the eight cases operated upon recovered, whilst in the late war between the States one out of eleven excised got well. In some cases of excision at the ankle joint good results have followed, but amputation is not so severe an operation, and the results which follow are much better; unless the case be one of chronic trouble and the patient otherwise in a good state of health, I would advise amputation to excision. Partial excision at this joint sometimes gives excellent results, but entire excisions are very unsatisfactory. In the tarsus, the *os calcis* when necrosed or much injured can be successfully removed with very little hazard to the usefulness of the foot. The astragalus also when dislocated has been removed and the foot remained a useful member. The bones in front of the tarsus, on account of their being enveloped in a common synovial membrane are very liable to take on each others disease, but still when one of them becomes necrosed it should be excised. In regard to the health of the patient: excisions ought never to be performed upon the large joints unless the patient is in very good health and free from any constitutional dyscrasia, neither as a rule should any of the joints of the lower extremities be excised in patients past the middle period of life. The most favorable time for excisions being in child-

hood and early youth. No excision should be considered for a moment unless the joint has suppurated or become disorganized, nor should excision be performed for any malignant disease about the ends of the bone, or its continuity, unless it is done early in the disease before the glands or the general system becomes affected. The diseases in which excisions are most favorable and followed by the best results, are tumor albus or white swelling, chronic abscess, near the joint, necrosis of the bones and ankylosis. The circumstances which would lead a surgeon to perform an amputation in a case otherwise favorable for excision apply principally to the lower extremities. Excision in the lower extremities in order that the result may be favorable, the limb should have perfect repose from the time of the operation for weeks, and perhaps months. In excision of all the large joints it is preferable except in the hip and shoulder to remove all the articulating surface, and in the latter when the sockets are involved. In excision of the upper extremities it should be remembered much cicatrization will restrict free motion, and it ought to be guarded against. Those parts which it is important should heal by first intention must be properly brought together by sutures, and the most dependent point left open for drainage.

SPECIAL EXCISIONS.

Excision of the last phalanx is frequently performed for necrosis caused by a felon and where the periosteum is preserved, the bone will sometimes be reproduced. In the first and second phalanges excision, except for small splinters of bone, does very little good, as the resulting union is ligamentous, and the finger of very little use. Any of the metacarpal bones may be excised in part or whole and the use of the corresponding finger preserved. In the index or thumb, the incision should be made on the radio-dorsal side; that of the little finger on the ulno-dorsal border, and in the second and third fingers the incision should be made upon the dorsal surface, care being taken to preserve the tendons. When the entire bone is to be taken out it should first be divided through its middle, and when it is possible the distal end corresponding with the phalanx should be left. Any of the carpal bones may be excised in whole or part, but where removal of the whole of them is undertaken, injury to the tendons will be found to be so great that in the majority of cases amputation becomes necessary. When the operation is determined upon, two free incisions should be made on each side of the carpus, at the same time carefully avoiding the tendons, the radial and ulnar arteries. The radius or ulna may be excised singly and a useful arm preserved, and when Allier's method of preserving the periosteum is practical, in some cases the bone is reproduced. The incisions should extend along the whole of the radio-dorsal and ulno-dorsal borders of the arm. The disarticulation will be greatly facilitated by dividing the bone through its middle. Excision of the wrist joint has been performed with some success; but owing to the small amount of tissue covering it, (and what does is tendinous) as well as the fact that the usefulness of the hand depends upon the freedom of its motion, it is a less favorable place

to excise than either the elbow or shoulder. Excision of ulno-humeral articulation gives the best results of all the excisions. The operation is a very simple one and does not necessarily cause the cutting of a single blood vessel or nerve of any importance, and where care is taken the attachment of very few of the muscles need be severed. Various incisions have been recommended but the best one is made vertically over the olecranon external to the ulnar nerve, extending about three or four inches. The bones should be turned out and cut through with the chain saw. After the operation the arm should be placed in a well padded splint in nearly a straight position. After suppuration has subsided gentle flexion should be used at each dressing, and the angle of support must be gradually changed until the arm is flexed to a right, or even an acute angle. The results of excision of this joint have been attended with variable success. In the Franco-Prussian war the death rate was very great. Out of 212 excisions performed by the French surgeons, 164 died; a death rate of 77.3 per cent. During the Crimea, seventeen cases recovered out of a total of twenty. During the war between the States out of 626 cases of excision both partial and complete, 470 got well, 146 died, of 10 the termination was not known, an average mortality 27.7 per cent. In regard to the time these operations were performed 329 were primary, of which 250 recovered, 68 died and 4 were unknown; 197 were intermediary, of which 127 recovered, 67 died, and 1 (one) unknown; 54 were secondary, 49 of which recovered, and 5 died; in 53 the period was uncertain, 44 of which recovered, 4 died, and 5 unknown. From the above data it would seem that the best time for performing this operation is the primary period. The mortality in excisions for gunshot wounds of the elbow range about the same as that of amputations. During our late war the death rate was 23.7 of the former and 23.6 of the latter. Excision of the head of the humerus is performed in injuries for gun-shot wounds, compound dislocations, and for chronic disease. It is the only operation that should be practiced in chronic disease of this joint. The incisions used are many, Mr. Bryant favors the vertical, Nelaton the transverse, and Aston Key the deltoid flap. In most of the cases the head of the bone will only have to be removed, but when the glenoid cavity is diseased it should be gouged. After the operation the arm must be abducted and placed upon a soft pillow with a pad in the axilla to counteract the displacement of the bone, which is very likely to occur from the contractions of the muscles. The ultimate results of this operation, says Dr. Hodges, whether for injury or disease, are very satisfactory, but they are not more than the ultimate results from natural processes, even with ankylosis. In all the excisions at this joint after recovery the arm can not be raised above the shoulder. During the Schleswig-Holstein war Esmarch reports 19 cases of excision at this joint, 12 of which recovered with useful arms and 7 died. In the Crimea the 16 operations performed by the English surgeons only one died; 8 of these operations were primary and 5 secondary. Dr. Culbertson collected 856 cases of gun shot wounds; 582 recovered, 267 died, and in 7

cases the result was not known. Of the 951 ascertained cases of excision of the head of this bone, 603 recovered and 348 died; a death rate of 36.6 per cent. Out of 831 cases 515 were primary excisions with a mortality of 31.06 per cent.; 92 secondary, with a death rate of 29.3 per cent.; 224 intermediary, the death rate being 46.4 per cent. It would seem from the above statistics that the primary period is the best of all to perform the operation. In the intermediary the fatality is so great that no consideration, except one of extreme urgency, would justify an operation at this time. Excision in the continuity of humerus proves very unsatisfactory for gun-shot wounds, the operation being followed by a false joint, in most cases where a section of the bone is removed. The operation was performed in 696 cases during our late war, with 477 recoveries, 191 deaths and 28 undetermined, with a mortality of 28.5 per cent.; 164 of the cases stated to have recovered resulted in false joints, and 37 required amputation. The time at which the operations were performed 487 were primary, with a death rate of 30.7 per cent.; 93 intermediary with death rate of 31 per cent.; 41 secondary with a mortality of 12.1 per cent., and 75 in which the period could not be determined, with a death rate of 17 per cent. The hip may require excision from several causes; first, for the removal of necrosed or carious bone, resulting from chronic disease. Second, for the removal of broken bone or balls after gunshot wounds. This joint was first excised for chronic disease by Mr. White, of London, in 1822. Since then the operation has been performed often, both at home and abroad. In well selected cases, the results on the whole have been good. In 280 cases collected by Dr. Lyster, of Detroit, the percentage of recoveries is as follows: Under 5 yrs., 58 per cent.; 5 to 10, 68 per cent.; 10 to 15, 60 per cent.; 15 to 20, 38 per cent., 20 to 30, 31 per cent.; over 30 yrs., 16 per cent.; not stated, 33 per cent. During the war between the states, Dr. Otis, U. S. Army, tabulates 85 cases in which this excision was performed with 8 recoveries, a death rate 90.6 per cent. It is plain from the above figures that childhood beyond infancy is the time of all others to perform this operation, and that it should be borne in mind that it is in youth that the best success is attained in disease, in the hip joint as in the other articulations. The operation for the excision of the head of the femur is best performed by a curved incision, extending two inches above the trochanter along the posterior border and two inches below. After the head of the bone has been reached the leg should be abducted, when the head and neck will be exposed, and the neck divided between the two trochanters. In a great many cases of chronic disease, the position and extent of the incision will have to be determined by the sinuses, for in the latter, the most direct road to the diseased bone is often found. After the operation Dr. Sayre recommends that the wound be filled with oakum, saturated with the Balsam of Peru, and that the patient be put in wire-breeches, and sent out into the open air. Passive motion should be instituted as soon as the wound heals, when in most cases all the movements the joint had previous to disease will be restored.

In this joint as well as all others, in very young children, as little of the bone should be removed as is consistent with the disease, for where the epiphyses are removed, the growth of the bone is arrested, and the disproportion between the two legs is greatly increased.

Excision of the knee-joint is performed principally for chronic ulcerative disease of the ends of the bones, for gun-shot injuries, and for the relief of ankylosis. Next to the elbow this joint has been excised oftener than any other, but the results which follow are by no means so satisfactory. There are a great many causes why excision of the knee is less successful than the elbow. The object aimed at is firm, bony ankylosis, which will require many weeks, and sometimes months of confinement. The joint being the largest in the body, the surfaces sawn through will be correspondingly large. The wound is badly situated both for drainage and union, and the epiphyseal lines, if encroached upon in young children, will result in the growth of the limb being checked. The results of excision for chronic disease, as given by Dr. Hodge, are as follows: 178 cases, of which 70 died and 108 recovered, with a death rate of 39 per cent., or one in $2\frac{1}{2}$, just double that of amputation performed for the same disease. In gun-shot, as before stated, out of eleven operated upon during our late war, one recovered. The incisions recommended for this operation are several, but the best one is an incision directly across the joint below the patella; but in case there are sinuses they should be followed when practicable. The joint being exposed the crucial ligaments are divided, and the ends of the bones tilted out when as much of the bone as is diseased is sawn off. It is a mooted point, but I believe the best surgeons remove the patella, while those who leave it claim that the joint is thereby made stronger. The bones should be wired in three or four places, wound closed, and the limb placed in a well-made splint, which will keep it perfectly immobilized. Excision of the ankle-joint may be required either for injury or disease. The object aimed at in this excision is the avoidance of doing injury to the tendons, nerves and vessels. When there are sinuses they should be enlarged when practicable, as this joint, like the wrist, has a small amount of tissue covering it. The operation in some respects is a good one, but very little is accomplished when excision is practised for some cases of chronic disease, as the inflammation is apt to extend downward through the tarsal bones. Excisions performed on this joint, for gun-shot wounds, are very discouraging. In the war of the Crimea there were no excisions by either French or English surgeons. During our late war the operation was performed eight times with five deaths. Langenbeck performed the operation eight times with one death during the German-Danish war, but there were two precautions taken in his cases which were not followed by our surgeons, that is, preserving the periosteum and complete immobilization.

A STUDY OF ABOUT ONE HUNDRED AND TWENTY CASES OF FRACTURE OF THE PATELLA.

FRANK H. HAMILTON, A.M., M.D.,
Surgeon, Bellevue Hospital.

(Second Paper. Continued.)

CONTINUED FROM THE 11TH OCTOBER 1903. (Continued.)

CASE 101.—Otto Hoff, æt. 37, laborer, residence unknown. Fell upon a sharp stone, Sept. 16th, 1869. On admission to Bellevue Hospital, 3d Surg. Div., same day, the knee was swollen, and there was considerable effusion into the joint. The patella was thought at this time to be broken transversely; there was a small wound near its outer margin. Rest and evaporating lotions.

Sept. 27.—Continues red and swollen (erysipelas). Discharging pus from wound. The probe seems to touch the condyle of the femur. Another opening made, which apparently exposes the joint. Poultices.

Sept. 28.—Dr. Smith made a new opening and removed five small fragments, composing about one-third of the patella. The wound packed with picked lint and carbolic acid.

Oct. 2.—Poultices.

Oct. 3.—Opened again.

Oct. 4.—Incision over tibia.

Oct. 7.—Incision.

Oct. 8.—Incision; pus foetid.

Oct. 30.—Condition improved; poultices suspended.

Nov. 10.—Fifty-fifth day. Posterior pasteboard splint.

Nov. 30.—“Improving slowly.” ((Here the record ends).)

COMMUNUTED FRACTURE FROM DIRECT FORCE. FIBROUS UNION $\frac{3}{4}$ INCH. (Seen by the writer).

CASE 102.—David King, laborer, æt. 50, 1000 First ave. Admitted to Bellevue, 3d Surg. Div., Jan. 30, 1878. On the same day, while carrying a heavy weight, he slipped and fell on his left knee, causing a “comminuted” fracture of the patella.

On admission, the knee was greatly swollen, and ice-bags were applied.

Feb. 11.—Swelling gone. The adhesive plaster lock-strap was applied, and over this a plaster-of-Paris bandage, enclosing thigh and leg.

March 5.—Splint cut open and renewed; the fragments being found in good apposition.

April 30.—Splints removed (three months after receipt of injury, and eleven weeks after application of splints). Passive motion employed.

May 4.—(Four months). Discharged cured.

I saw this man Oct. 12th, 1879, nearly twenty-one months after the injury was received. It appears now to have been a transverse fracture through its middle; there being left no traces of “comminution.” The fragments are separated three-quarters of an inch by a firm ligament. No hypertrophy of fragments.

He says that when he left the hospital he was on crutches, and the knee-joint was perfectly stiff. Gradually the motion of the joint returned, but any

attempt to flex it forcibly was very painful. For eighteen months he could not put the left foot first in ascending steps, and he has only within a few days been able to return to work. His leg is still unreliable and occasionally painful. He can flex and extend the limb completely.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT BLOW.

RESULT UNKNOWN.

CASE 103.—Wm. Keating, 861 Third ave., æt. 40. Fell June 11, 1878, while descending a flight of steps, striking upon the edge of a step. Admitted same day to Bellevue, 2d Surg. Div. There was general swelling of knee and effusion into joint, and a transverse fracture of the patella. A posterior splint was applied, and the fragments supported with a figure-of-8 bandage.

June 15.—Bandage loose and removed. Fragments separated half an inch. Crepitus. The limb being elevated and the fragments pressed together by the fingers, adhesive strips were laid obliquely from above and below to hold fragments in place; one strip being laid over the lower fragment to prevent its tilting; a roller was applied from the toes to the saphenous opening, and the foot kept elevated.

June 22.—Bandage and adhesive strips removed. Broad strips of adhesive plaster were then applied, crossing each other above and below (so I interpret the notes.—H.) to press the fragments together, and furnished with a buckle. A plaster-of-Paris splint was applied to the whole limb, with a fenestrum over the knee, and the traps then buckled. (Here the record closes).

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE.

RESULT UNKNOWN.

CASE 104.—Mary Moran, æt. 32, 45 West St. Fell out of a window, Aug. 12, 1877, striking upon her right knee. On the same day she was admitted to Bellevue, 1st Surg. Div. There was found to be a transverse fracture of the patella below its middle, the fragments being separated three-quarters of an inch. There was considerable swelling.

A posterior splint, secured at the knee with a figure-of-8 bandage, was applied, and ice-bags.

Aug. 20.—Lock-strap of adhesive plaster substituted for figure-of-8, and a plaster-of-Paris splint, open at the knee.

Sept. 6.—Removed and re-applied.

Sept. 16.—Much pain in the thigh. Cut open the splint and found that the adhesive plasters had caused excoriations. Plasters removed, sores dressed and a silicate of soda splint applied.

Oct. 1.—Discharged on account of insubordination.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE—FIBROUS UNION, $\frac{1}{4}$ INCH.

CASE 105.—Hugh Dennis, æt. 52, fractured the left patella transversely, at its middle, March 31, 1871. The accident happened in descending a flight of steps with a heavy trunk on his back. Supposing he had reached the bottom of the flight he fell three steps striking upon his left knee, and breaking the patella transversely at its middle.

Admitted same day to 2nd Surg. Div. Fragments separated one inch, but they could be easily

brought in contact so as to cause crepitus. Suffering great pain. His limb was at once placed upon an inclined plane, and the fragments secured with circular and oblique turns of a roller.

April 1.—Great swelling. A moist sponge was laid over the knee and bound on with a roller tightly. This being wet at short intervals.

April 11.—Sponge removed. Swelling gone. Fragments separated half-an-inch. A compress was laid over each fragment, and the fragments were drawn together with adhesive plasters laid obliquely. The limb was then enclosed in a plaster-of-Paris dressing. Heel elevated seven inches.

April 14.—Fragments separated half-an-inch. All dressings removed. Broad adhesive strips laid from above and below longitudinally over the patella, and buckled; cork pads being laid underneath, above and below the fragments.

May 9.—Thirty-nine days after the accident, dressings removed. Fibrous union of one quarter-of-an-inch. Upper fragment elevated two lines above the lower at the point of fracture. A posterior splint applied, retained in place by bandages laid obliquely over the knee, etc. (The notes are here terminated.)

SIMPLE TRANSVERSE FRACTURE.—FIBROUS UNION OF $\frac{1}{2}$ INCH. (UNDER CARE AND OBSERVATION OF THE WRITER.)

CASE 106.—Charles Wormley, æt. 22, fell from a wagon Jan. 26, 1873. On the same day he was admitted to the 99th St. Reception Hospital, and was found to have a transverse fracture of the left patella. Dr. Delgado, my House Surgeon, applied at once a posterior splint, secured with rollers; that portion covering the knee and the parts just above and below the patella being laid in the form of a figure-of-8.

Jan. 31.—The swelling having subsided, Dr. Delgado applied a plaster-of-Paris dressing.

About the 1st of March the plaster splint was cut open.

March 8.—I found the fragments had united with a ligament of half-an-inch. Fragments could be moved upon each other. Could flex knee about 15°.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE. FIBROUS UNION OF $\frac{1}{4}$ INCH. (EXAMINED BY THE WRITER.)

CASE 107.—Dennis Sullivan, æt. 25, was struck upon his left knee, Jan. 21, 1873, breaking the patella transversely. On the same day he was admitted to the 99th St. Reception Hospital. The fragments were separated half-an-inch. The limb was dressed with a long posterior splint; the foot being elevated.

Jan. 28.—The House Surgeon, Dr. Delgado, applied a plaster-of-Paris dressing.

Feb. 12.—The plaster-of-Paris splint was removed, and adhesive strips and a roller substituted. Two ulcerations had occurred, one above and one below the patella, caused by the plaster; but these subsequently healed, upon the discontinuance of all dressings.

March 8.—I found the patella united with a liga-

ment of half-an-inch; considerable ankylosis existed. Passive motion ordered.

SIMPLE TRANSVERSE FRACTURE.—FIBROUS UNION OF $\frac{1}{2}$ INCH.

CASE 108.—James Garlin, engineer, 412 E. 15, æt. 24, fell Sept. 23, 1869, twenty-five feet, breaking the right patella transversely. Does not know how he struck.

Admitted within one hour to Bellevue, 3d Surg. Div. Knee swollen and tense. Lead and opium wash.

Sept. 24.—Ecchymosis on each side of knee. Bursa patellæ distended. Continue treatment.

Oct. 4.—Eleventh day. Not been able to determine the existence of a fracture until to-day. Treatment continued.

Oct. 5.—Thirteenth day. Limb laid upon an inclined plane, the foot being elevated 14 inches.

Oct. 13.—The capsule of the joint is still distended, but the swelling over and about the knee is gone.

Oct. 14.—Three weeks. Adhesive plasters applied to adjust the fragments.

Nov. 30.—Sixty-eighth day. A fibrous union $\frac{1}{2}$ inch in length found on the fortieth day, but the limb still remains upon the inclined plane, the fragments secured with a figure-of-8-bandage. (The record here closes.)

COMMUNICATED FRACTURE FROM DIRECT FORCE, UNION BY LIGAMENT OF $\frac{1}{4}$ INCH.

CASE 109.—Daniel Doody, longshoreman, 43 Oliver, æt. 45, broke the left patella by direct violence July 4, 1867. Admitted to First Surgical Division, Bellevue, July 5th. He was suffering also from concussion of the brain, and a fracture of the right tibia and fibula.

There was much swelling about the joint, and an acute synovitis. The limb was therefore placed upon an inclined plane, without being confined in position.

July 27.—Twenty-third day after fracture. The limb was dressed with a leather, posterior splint and bandages.

Aug. 1.—Adhesive plasters employed to adjust the fragments.

Sept. 1.—Fifty-nine days after the accident. All dressings removed. Ligamentous union of one-quarter of an inch in length.

Sept. 17.—Discharged. Laid aside crutches in about three months. Then walked well. Was never in perfect health after this and never worked again. Died March 2d, 1876.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE—UNION WITH SEPARATION OF $\frac{1}{4}$ INCH.

CASE 110.—George Galbraith, sailor, 106 Suffolk, æt. 29, fell forward striking his knee upon the edge of a step, Dec. 16, 1875. It hurt him for a short time and he found himself unable to walk.

Dec. 17.—Admitted to Bellevue, 2d Surg. Div. He was found to have a transverse fracture of the patella, about its middle. The parts were moderately swollen, but it was not painful. A long posterior splint was applied, secured by a roller.

Dec. 20.—Swelling much increased. Lead and opium wash.

Dec. 28.—Twelfth day swelling gone. "Considerable space between fragments." Adhesive strips were applied longitudinally, and buckled over the patella, also a roller. On the following day complained that the dressings were painful.

Jan. 6, 1876.—Dressings have been tightened daily.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—FIBROUS UNION OF 2 INCHES—NEARLY PERFECT LIMB WHEN SEEN BY THE WRITER AFTER 5 YEARS.

CASE 111.—Peter Waters, æt. 23, mason, 1830 3d ave., while running caught his heel, and in his effort to save himself fell back. At this moment he heard his patella "crack like a fire-cracker," and found at once that he could not stand.

On the following day, April 30, 1874, he was admitted to Bellevue. The fracture was found to be transverse below the middle, and the fragments separated $\frac{3}{4}$ inch. Evaporating lotions were applied.

May 5.—A silicate-of-lime splint was applied, the fragments having been previously approximated by adhesive strips locked over the front of the patella.

May 13.—Splint removed as it did not have sufficient firmness, and plaster-of-Paris splint substituted, which was soon cut open.

May 13.—Seventeenth day.—Discharged at his own request, with instructions to report from time to time. (No farther record.)

I saw and examined this man Oct. 22, 1879, more than five years after the accident. The fragments were separated two inches, and united by a firm ligament. No hypertrophy of fragments. He can use the leg almost as well as the other—can flex and extend fully, and run up and down stairs.

When he left the hospital, with the plaster splint on, he wore it about two weeks, the joint was then very stiff. On taking off the splint he moulded a piece of sole-leather and made for himself a kneecap, which he wore a few weeks longer. Subsequently, the knee being still ankylosed, he consulted a surgeon, who, finding the upper fragment fixed, pushed it with force from side to side, and, as he thinks, stretched the ligaments; at least he knows that it caused him great pain and he could not walk as well as before for six weeks. Gradually the ankylosis disappeared, and in about one year he resumed work as a mason.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE—RESULT UNKNOWN.

CASE 112.—James W. Hall, cutter, 513 6th ave., æt. 44. Fell while running, striking upon his knees, Dec. 24, 1874, breaking the patella transversely a little below its middle. Admitted to 1st Surg. Div. on the same day.

The fragments were found separated 1 inch, and there was considerable inflammation and swelling about the joint. As a temporary dressing adhesive strips were applied longitudinally and "locked" over the patella, and there secured by bandages. Lead and opium wash applied.

Jan. 15, 1875.—22 days after the fracture—A plas-

ter-of-Paris splint was applied. (There are no farther notes of this case.)

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION.—FIBROUS UNION OF $\frac{1}{2}$ INCH. (Seen by the writer.)

CASE 113.—Samuel C. Milligan, 147 Sullivan St., æt. 39, admitted to Bellevue, 1st Surg. Div., April 10, 1878. On the same day, while carrying a piano down a flight of steps, he put his right foot upon a step, forcibly straightening his leg, when he felt and heard a snap, and was unable to stand.

The fracture was in the right patella, transverse and a little below the middle. Ice bags were applied.

April 13.—Lock-strap and plaster-of-Paris splint.

April 25.—Dressings removed, as patient complained of pain. Adhesive extension plasters were arranged above and below the fragments, and the straps from above were carried down the limb and extension upon the upper fragments effected by weights. A dry roller and plaster-of-Paris splint were added.

April 30.—Extension plasters have slipped and caused slight excoriation. Re-applied.

May 13.—Dressings re-applied. Lower fragment has tilted forwards. Adhesive strips laid over it.

May 28.—Allowed to get out of bed, with the extension plasters brought down below the sole of the foot—as a substitute for the weights.

May 31.—Dressings removed and extension plaster strips and plaster-of-Paris splint again applied with a window in front of knee. The extension plaster strips being tightened after the plaster had hardened.

June 8.—Splint removed. Extension upon the upper fragment being made by a piece of elastic tubing attached to adhesive plasters and passed under the foot.

June 25.—Dressings removed.

June 27.—Slight passive motion. Applied a paste-board splint.

July 3.—(About 3 months). Fragments separated about $\frac{1}{4}$ inch. Knee can be flexed about 25° . Discharged.

I examined Mr. Milligan, Oct. 6, 1879, about 18 months after his discharge from the hospital. He was able to walk without a cane in two months, but wore a knee-cap until about seven months ago. The limb is now as useful as the other. He is a truckman and lifts heavy weights. The fragments are united by a fibrous bond of $\frac{1}{2}$ inch in length, permitting the fragments to move slightly upon each other. The upper fragment is slightly hypertrophied. The motion of flexion and extension are complete and without grating or chafing. He does not drag the leg in ascending steps. I think it may be said of Mr. Milligan that his limb is as sound and useful as it ever was.

SIMPLE TRANSVERSE FRACTURE.—FIVE WEEKS BEFORE ADMISSION.—RESULT PROBABLY FIBROUS UNION OF 1 INCH.

CASE 114.—Anna Benson, 121 William, æt. 28, while walking stumbled and fell breaking the patella transversely through its upper third. She was taken

home, and a surgeon called who encircled the limb above and below the patella, and with counter straps sought to bring the fragments together. This caused much pain. (Whether discontinued or not is not stated.)

Five weeks later, in July 1875, she was brought to Bellevue, 3d Surg. Div. The fragments were separated 1 inch. Adhesive plaster bands were brought from above and below, (underlaid above the patella with several successive layers of adhesive plaster) and "locked," or interlaced, being secured also to a posterior, wooden splint. A plaster-of-Paris bandage, or splint, was then applied.

July 2.—Walking without crutches.

(This concludes the report.)

SIMPLE, NEARLY TRANSVERSE FRACTURE FROM DIRECT FORCE—RESULT UNKNOWN.

CASE 115.—Michael McDermott, dock builder, 8 Albany street, æt. 32, tripped and fell on his knees, Nov. 1, 1870. He felt a sharp pain in the knee, but with some difficulty arose and walked home. During the next week he sat or hobbled about the house. He kept the knee bandaged.

Nov. 8.—He was admitted to Bellevue, 3d Surg. Div. He was then able to walk, but with difficulty. The patella was found broken nearly transversely, with a slight separation. Extensive ecchymosis, but no swelling. He was ordered to remain in-bed.

Nov. 12.—Eleventh day—a plaster-of-Paris bandage was applied to the leg and thigh, the portion covering the knee being laid in the form of a figure-of-8, and over compresses. The limb was then laid upon an inclined plane.

Nov. 14.—He was permitted to use crutches. (No farther report of the case.)

SIMPLE TRANSVERSE FRACTURE—SUPPURATION—"GOOD UNION."

CASE 116.—Mary Dowling, 41 E. 17th st., æt. 55, fell from a second-story window April 7, 1870, breaking the right patella transversely, and also the tibia and fibula of the same leg.

Admitted to 2d Surg. Div., April 8th. There was a wound of about one inch in length over the broken patella, but it did not communicate with the joint. There was considerable fluid in the joint.

The limb was placed in a fracture box, supported by bran bags. On the 9th a plaster-of-Paris splint was applied. On the 13th she was so turbulent and noisy that she was sent to a prison cell. On the 20th, a sinus having formed under the skin, it was laid open. The splint was removed on the 30th of April, and the union found to be "good." It was reapplied and removed finally on the 15th of May. On the 24th she was discharged, the precise result not being stated.

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE—FIBROUS UNION 1-5 INCH.

CASE 117.—Michael O'Neill, laborer, 144 Cherry st., æt. 22, broke the right patella transversely, by falling upon the edge of a stone, March 26, 1869. Admitted on the following day to 2d Surg. Div.

The knee was much swollen and the fragments were separated $\frac{3}{4}$ inch. Limb was laid upon a

inclined plane and cold water dressings applied. As the swelling subsided, by the aid of adhesive strips, the fragments were made to approach each other within $\frac{1}{4}$ inch.

April 10.—The 15th day—the broken margins were found tilted forwards. Adhesive strips laid across patella. These were removed on the 17th and 21st.

May 6.—41 days—all dressings removed, but patient retained in bed. Fibrous union 1-5 inch.

May 12.—Posterior splint and adhesive plasters.

May 27.—Walking.

June 3.—Discharged.

SIMPLE OBLIQUE FRACTURE FROM DIRECT FORCE—
ABSCESS—"SCARCELY A LINE OF SEPARATION."

CASE 118.—C. Riley, waggoner, æt. 16, was run over by a wagon, Dec. 24, 1869, and was admitted to the 2d Surg. Div., on same day.

The left patella was broken obliquely, and the joint was considerably swollen. The limb was laid at rest and temporary dressings applied.

Dec. 25.—Only a slight separation of fragments.

Jan. 3, 1870.—Tenth day, pulse rapid, skin hot. Abscess in popliteal region of opposite leg, which was opened. The left leg was then placed upon an inclined plane, and the fragments secured by adhesive strips laid obliquely.

Feb. 7.—45th day, good union. "Scarcely a line of separation." Discharged.

E. TRANSVERSE FRACTURE FROM DIRECT FORCE.—TREATMENT AND RESULT UNKNOWN.

CASE 120.—Jeremiah Sullivan, laborer, 24 Morris St., æt. 32, slipped with his right foot, falling with his foot under him and striking upon his knee.

Admitted to 3rd Surg. Div. Bellevue, May 4, 1871.

Has a transverse fracture of the right patella. (No farther record.)

SIMPLE TRANSVERSE FRACTURE—UNION WITH SEPARATION OF $\frac{1}{2}$ INCH.

CASE 120.—Samuel Hanna, 9th Ave. and 32nd St., æt. 48, admitted to 2nd Surg. Div. Jan. 26, 1873, with a fracture of the patella. Laid limb upon an inclined plane. In February the fragments were separated $\frac{1}{2}$ inch.

March 1.—Plaster-of-Plaster dressing applied.

March 18.—Fifty-one days. The dressings removed. Fragments separated $\frac{1}{2}$ inch. Knee-joint somewhat stiff. (No farther record.)

SIMPLE FRACTURE FROM DIRECT BLOW—UPPER FRAGMENT "TURNED UPON ITSELF"—FIBROUS UNION OF $\frac{1}{2}$ INCH.

CASE 121.—Peter Smith, laborer, 714 Water St., æt. 50, was admitted to 1st Surg. Div. Bellevue, Nov. 5, 1867, with a fracture of the left patella, caused by direct violence. At the time of admission could lift his leg with ease. There was considerable ecchymosis. His limb was placed upon a single inclined plane, and cold water dressings applied.

Nov. 8.—Longitudinal adhesive strips were applied from above and below to bring the fragments together.

Nov. 10.—Complains of pain. Adhesive strips removed and reapplied.

Dec. 20.—Fragments have been kept together as closely as possible with adhesive plaster. Little or no union.

Jan. 9.—Two months after admission dressings removed. No union, upper fragment "turned upon itself." (There is no farther record of this case.)

Oct. 16, 1879.—Twelve years after the accident, he being then employed by Mr. Augustus Faber as a gardener. I found the fragments united by a ligament of half-an-inch—the fracture was transverse, below the middle—no hypertrophy. The lower edge of the upper fragment is quite prominent. He can flex and extend his leg, but in descending steps he puts the sound limb first. Says he was four months in the hospital.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—PROBABLE FIBROUS UNION—RUPTURE OF BOND OF UNION—PLASTER-OF-PARIS SPLINT—RESULT UNKNOWN.

CASE 122.—John Herrick, bricklayer, æt. 24. In jumping, Sept. 1, 1878, he felt something give way in his right knee, and on the following day he was admitted to Bellevue, 1st Surg. Div.

The knee was swollen, ecchymosed and painful, and the fracture was not recognized. Ice bags were applied and the limb elevated.

Sept. 9.—The swelling having subsided, a transverse fracture of the patella, above its middle, was discovered, the fragments being separated 1 inch. "Same splint applied as in the case of Brady."

Straps not buckled until the following day.

Sept. 13.—Could not bear the pain caused by the straps and buckles. Adhesive strips applied. In order to relieve his pain and restlessness he was given chloral hydrate and bromide of potassium quite freely.

Sept. 21.—A roller bandage was placed over the patella and beneath the buckles to relieve the pressure of the latter.

Sept. 25.—Dressings removed. Fragments brought together by adhesive strips, and over this a plaster-of-Paris splint the whole length of leg and thigh.

Nov. 6.—Fragments separated from $\frac{1}{4}$ to $\frac{3}{8}$ inch. Can flex knee 30°. Discharged.

Dec. 16.—About three weeks after being discharged he slipped in descending a flight of stairs and ruptured the bond of union. He was re-admitted to Bellevue, same division. The fragments were found separated 1 inch. Suffering no pain. Walking quite well. A plaster-of-Paris splint was applied. It was then cut open longitudinally on either side, and the front portion being open over the knee, the whole was bound on and the upper portion drawn together by straps.

Jan. 17.—Removed and plaster-of-Paris splint applied. Open at knee. Horse-shoe strips of adhesive plaster. (No farther record.)

FRACTURE OF LEFT PATELLA—FIBROUS UNION OF ONE INCH—FRACTURE OF THE RIGHT PATELLA SIX YEARS LATER FROM MUSCULAR ACTION—RESULT NOT STATED—BOTH FRACTURES BELIEVED TO HAVE BEEN SIMPLE AND TRANSVERSE.

CASES 123-4.—Wm. Scott, carman, 122 Amity St.,

broke his left patella in 1865, when 27 years old, the fracture resulting in a fibrous union of one inch in length. During the four following years he wore a knee brace, after which he walked without any support to the knee, always favoring the injured limb by bearing his weight chiefly upon the opposite limb.

May 16, 1871.—Six years after the first accident, he slipped while walking, and in the effort to recover himself, broke the right patella, and then being unable to stand, settled down easily upon his haunches.

Admitted to 2d Surg. Div., May 18th. The knee was a good deal swollen, and only bandages were applied. The limb being kept at rest.

May 31.—Two weeks after the fracture, strips of adhesive plaster were laid above and below the knee, longitudinally. Plaster-of-Paris bandages were then applied to the leg and thigh, with an interval corresponding to the knee, (not very fully described) and the ends of the adhesive strips were then made fast to the plaster-of-Paris above and below, so as to draw the fragments together.

Sometime in June (date not given) he was discharged, the apparatus having been previously removed; (the result is not stated.)

SIMPLE TRANSVERSE FRACTURE FROM DIRECT FORCE
—FIBROUS UNION (PROBABLY)—REFRACTURE FOUR MONTHS AFTER THE FIRST FRACTURE, AND ABOUT ONE MONTH AFTER IT WAS CURED—REUNION.

Patrick Owens, 338 E. 63d St., æt., 28, was admitted to the 3d Surg. Div., Bellevue, Jan. 4, 1877.

He stated that he had broken his patella three months before by direct violence, and was taken to the Presbyterian Hospital, and remained there eleven weeks, when he was discharged, with a firm union between the fragments.

One week before admission he fell again, rupturing the bond of union. The fracture was transverse. His limb was placed upon an inclined plane and the fragments secured by adhesive strips, "locked."

April 12.—About three months after admission he was discharged "cured." (No other record.)

COMMUNUTED FRACTURE FROM MUSCULAR ACTION
—BOND OF UNION FEELS LIKE BONE.

CASE 126.—Through the courtesy of Dr. E. T. Marsh, of this city, I was permitted October 24, 1879, to see John Adkins, 125 W. 30th street, æt 39, who on Jan. 11th, 1877, two years and two months before, while attempting to assume the erect posture with a heavy weight upon his head, slipped, and, in the attempt to save himself, felt the left patella snap.

Dr. Marsh saw him within 30 minutes. The joint was then filled with fluid (probably blood). The fracture was oblique, from within outwards and upwards, and the upper fragment was broken vertically. The main fragments were separated two inches, and the two upper fragments were in contact.

Dr. Marsh applied at once a compress above and below the main fragments, and a figure-of-8 bandage. A few hours later the limb was laid on a single inclined plane—my apparatus—the bandage

having been previously removed. Adhesive plasters were applied over the compress and splint, in form of the figure-of-8, and then a roller. The apparatus was continued 28 days, only being renewed once in this time. When removed the fragments seemed to be united. Slight passive motion employed. An open plaster-of-Paris splint was then applied, and this was retained upon the limb until the 48th day, the joint being moved every day. Subsequently a paste-board splint, and finally a knee-cap, which was continued several months. No force was ever employed to overcome the stiffness. He has been at work ever since. Has now very little lameness—indeed none except in descending stairs. The bond of union is so firm that the fragments cannot be moved upon each other. On the outer side they appear to be in contact, but on the inner they are separated half-an-inch. The upper fragments are in contact.

SIMPLE TRANSVERSE FRACTURE FROM MUSCULAR ACTION—UNION FEELS LIKE BONE— $\frac{1}{4}$ INCH SEPARATION. (Seen by writer in 1879.)

CASE 127.—John Rooney, æt. 30, while descending a flight of steps Jan. 7, 1877, "heard a loud snap." At the same moment he felt a severe pain in his left knee and found himself unable to walk. He was at once sent to Bellevue, and admitted to 4th Surg. Div., Dr. Hope, House Surgeon. Fracture transverse at middle; knee swollen and very painful; leather splint and ice-bags. The swelling did not begin to decline for some days, and the ice was continued until the 21st. After the 15th the limb was supported by a posterior and leather splint, and the heel raised.

Feb. 2d.—Permitted to leave his bed.

Feb. 17.—"Union firm." Discharged cured.

I examined the leg Oct. 1, 1879. The fragments are united by a firm bond of about $\frac{1}{4}$ of an inch. It feels like bone. Bends and flexes leg perfectly; walks up and down stairs as well as before; fragments of natural size; now lives at No. 73 Fourth avenue, cor. 10th St.; wore his leather splint two weeks after he left hospital; never wore a knee-cap.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

PERNICIOUS REMITTENT FEVER.

Chas. L., age 40, a tailor by occupation, was admitted Sept. 20th. His family history was excellent. His health had generally been good. He had had yellow fever in Havana three or four years ago, and "chagres fever" eleven months ago. He had also had gonorrhœa and syphilis. He says his habits have not been very bad. Has not drunk to excess. He has been employed on a steamer sailing between this port and Savannah, and has not touched at other ports recently. He left Savannah Sept. 1st, and arrived here about the 15th of Septem-

ber(?). During the trip, and on his arrival he felt perfectly well. There was no sickness aboard that he knew of. The vessel came directly to New York, and while at Savannah he did not go inland, and it was said that there was no contagious or prevailing disease about the city.

On the morning of Sept. 16th, he was taken suddenly ill with a chill of slight intensity, and fever, and felt very weak. From that time till his admission he does not know what happened, but thinks that he had two or three chills, and that he felt very thirsty.

On admission he appears to be a well-developed man; nothing at that time could be learned from him as he was rambling and incoherent in his replies; he was not exactly delirious. Slightly jaundiced. Temperature $105\frac{1}{2}^{\circ}$. Skin was hot and dry; the pupils were normal; the expression was natural, but the patient was very weak. Subtulus tendinum was well marked. The tongue was moist and coated white. The urine was dark in color, acid in reaction, contained large quantities of albumen, and bodies very like granular casts. Physical examination shows that the lungs and the heart are normal, the liver about normal, the spleen slightly enlarged.

He was ordered quin. sulph. gr.xx and sponge bath.

On the morning after his admission he was perfectly rational, and his temperature was normal ($98\frac{1}{2}^{\circ}$). The temperature began to rise again till the evening of the 22d when it was 101° ; then it fell till the morning of the 25th when it was as low as 96° . During these five days the patient had felt quite well, though weak. His mind was perfectly clear. The jaundice remained about the same; the tongue became natural, the bowels were constipated. On the morning of the twenty-fifth he vomited once, a brownish matter which, under the microscope, showed nothing of interest. The urine still contained albumen but no casts.

The treatment was five grains of quinine three times a day and half an ounce of whiskey every two hours.

Sept. 26th.—Temperature $96\frac{1}{4}^{\circ}$. Since the previous day he had vomited occasionally a yellowish material. During the night and this morning he hiccoughed a good deal. He was ordered ten grains of calomel, and the quinine and whiskey were continued.

About three P.M. he had convulsions and in a few minutes died.

Autopsy twenty hours after death. The brain was somewhat anæmic, and parts of the cortical substance were darker than normal, but it was not certain that there was any pigment. No capillary extravasations were found beneath the pia mater. In other respects the brain was normal.

The lungs were adherent to the walls of the thorax but otherwise healthy, as was also the heart.

The liver was of a dark brown or chocolate color. Normal in size and consistency. The dark color was plainly owing to the presence of pigment.

The spleen weighed twenty-four ounces and was of a bronzed color. Under the microscope pigment granules were found.

The kidneys were large and white. The increase

of size and change of color were caused by fat and increase of connective tissue.

The other organs were normal.

ABOUT BOOKS.

Trepanation, Guidee par les Localisations Cerebrales, par Le Dr. Just Lucas—Championiere; Chirurgien des Hopitaux de Paris, Membre de la Societe de Chirurgie, Redacteur en chef du Journal de Medecine et de Chirurgie pratiques—Paris V. A. Delahaye et Cie, 1878.

It is gratifying to be able to commend to the profession this modest, thorough and progressive book on the operation of trephining, guided by cerebral localization.

Beginning with a sketch of the history of trephining, the writer shows that this operation was in vogue before Hippocrates. Skulls which had lain in crypts and catacombs before the earliest pages of history were written, are found bearing indisputable evidences that this operation was performed on living subjects. It is doubtful whether it was done as a surgical or religious rite, but the probability is that it was done under both conditions.

The sense of Lucas-Championiere's book, in a condensed form, is this: Given, paralysis or convulsive movements of certain muscles or groups of muscles, following a lesion of the brain, there exists an abnormal pressure on that portion of the encephalon from which the motor impulse to these muscles originates.

The fissure of Rolando is the center of the motor regions of the brain, hence the author lays peculiar stress upon his "*ligne rolandique*." To find this line upon the living skull (1); shave the scalp; 2nd, from the superior external angle of the orbit (about the fronto-malar suture. W.); draw a line horizontally backward to a point 7 cm. (two and three-quarters inches) distant. (The end of this line will be almost directly above the external auditory meatus and near the squamo-parietal suture). From this point draw a second line, perpendicular to the first and extending 3 cm. above, and towards the bregma.

The third point to be obtained is 55 millimetres (about 2 and one-fifth inches) behind the bregma, and along the interparietal suture. The *ligne rolandique* extends from this point to the upper end of the perpendicular short line just given and indicates the general direction of the fissure of Rolando.

If there should be any difficulty in finding the bregma, the following rule will indicate its location; with the head held so that the face looks directly to the front, a perpendicular line drawn from the external meatus will cross the coronal-sagittal junction. Immediately behind the "rolandic" line and parallel with it, extending from the longitudinal fissure to the squamo-parietal suture is the *ascending parietal convolution*.

In front of this line and extending the same distance is the *ascending frontal convolution*. In other words the great central motor region of the cerebrum is bounded between the coronal suture in

front, the squamo-parietal below, extending from the spheno-parietal junction backwards about two inches, and a line drawn from this point parallel with the coronal suture to the median line of the skull. The rolandic line divides this parallelogram into two smaller ones of about equal area. When the paralysis or convulsive movements are confined to the inferior extremity the indications are to trephine at the summit of the *ascending parietal convolution*. *Upper and lower extremity*, summit of the *ascending parietal*, involving both convolutions. *Upper extremity alone*; middle third of *frontal ascending convolution*. *Upper extremity with aphasia*, lower third of the *frontal ascending* and foot of the *third frontal*. *Facial paralysis*, lower third of *frontal ascending*, and foot of *second frontal*. *Aphasia alone*, base of the *third frontal*.

M. Lucas-Championniere embodies in his work an abstract of the cases bearing upon his subject reported in the *Medical and Surgical History of the War of the Rebellion*, and pays a well deserved tribute to this excellent work. The author's name has been prominently before the profession in the various discussions before the *Societe de Chirurgie*, especially in his courageous endorsement of "Lister's Method," but as far as the writer of this article is aware, he has done nothing to commend him more favorably to surgeons, than to give to the public this work, which we hope to see immediately translated into English for the benefit of the English reading practitioners.

J. A. WYETH.

44 W. 27th St., New York

NEWS ITEMS AND NOTES.

Two Curious Cases of Poisoning.—The following case of poisoning by an overdose of santonin illustrates forcibly the well-worn adage, that a little knowledge is a dangerous thing, and may serve as a wholesome warning to amateur doctors. A native girl, aged 7, an inmate of one of the schools conducted under foreign auspices at Kinkiarg, complained of symptoms that were interpreted to point to intestinal worms. Accordingly, half a teaspoonful of santonin was administered in one dose early in the morning. For half an hour she appeared quite well, but she then suddenly fell down in a fit, became insensible, foamed at the mouth, with livid face and stertorous breathing. Fortunately, at this moment she vomited freely, and was placed by her attendants in a warm bath, in which she regained consciousness. Dr. Jardine, who records the case, saw her soon afterwards, and, on hearing of the dose of santonin, ordered a smart purge. The patient was well in the afternoon of the same day; and it is to the timely vomiting that she probably owes her life. Santonin, even in small medicinal doses, is sometimes capricious in its action, so that care should always be taken in its administration. A number of cases have from time to time been recorded in various medical journals, both home and foreign, where doses of six grains and under have been attended with most alarming symptoms.—Another equally curious case is recorded by Dr. James Watson as occurring at Newcarg. Dr. Watson was sent for by a patient, who fancied he was dying of cholera, and whose symptoms proved to be sufficiently alarming to justify his fears. It was evident, however, that he was suffering from the effects of an irritant poison; and, on inquiry, it was found that an hour previously he had idly picked up a castor-oil seed, under the impression that it was a bean, and had chewed and swallowed about half of it. Five minutes afterwards, he suffered from a burning sensation in the throat, which extended along the whole alimentary canal, even to the anus. A few minutes later, severe vomiting and diarrhoea set in, which rapidly reduced him to a very prostrate condition. Steam inhalations, with morphia and brandy internally, and

mustard-poultices gave relief within an hour or two; but for two or three days the patient was weak, his digestion deranged, and he complained of dull aching which extended from one end of the bowel to the other. The interesting features of the case are the smallness of the dose which produced such severe symptoms, and the rapidity with which the poison acted on a strong man in perfect health. In Taylor's *Principles and Practice of Medical Jurisprudence*, mention is made of the poisoning of three sisters by castor-oil seeds. They took respectively "about twenty," "four or five," and "two" seeds. The first died; the other two recovered; but in none of the cases did the symptoms of poisoning occur until five hours after eating the seeds.—*Brit. Med. Jour.*

Chinese Operative Midwifery.—In the series of Reports of the Chinese Customs Medical Officers, Dr. Alexander Jameson, who edits the Reports for the Inspector-General, has given from time to time a number of most interesting, if horrible, instances of Chinese operative midwifery. Two cases which he records in his last report may be taken as fairly representative of the tortures which Chinese women have to endure at the hands of those who are supposed to assist the operations of nature. One evening Dr. Jamieson was called to see a native woman, aged 25, at the termination of her second pregnancy. She had been in labor three days, an arm presenting, and a series of native midwives had in turn maltreated her, and finally given her up. On examination, her general condition was found nearly as bad as could be, the bladder distended, the child's arm outside the vulva with the humerus broken just above the elbow-joint, the ends of the bone two inches apart, and united by what felt like an empty bag of skin. This will give some idea of the traction that had been employed. The child, dead of course, lay in the dorso-posterior position, thoroughly jammed in the pelvis. Dr. Jamieson succeeded in turning the child and effecting delivery, and eleven days afterwards the woman was about the house. In another case to which he was called, the woman was found dead and the bed and the floor covered with blood. He was told that an arm had been presenting for two days and a half, and that the midwife, after Dr. Jamieson was sent for, had cut away the arm as high as she could reach. Profuse hemorrhage occurred immediately, which was fatal. The midwife then fled, carrying the arm with her. The people in the house said that the blood that flowed from the patient was black, and ran away like water out of a bucket. The knife had doubtless plunged into a mass of enlarged vaginal veins. In a somewhat similar case recorded in a former report, a midwife who was called in on the third day of labor cut into the child's head, and endeavored to extract with an iron hook. Failing in this attempt, she and two other midwives, who had been previously called in, ran away, and the woman was left to die. When labour had lasted six days and a half, she was brought by her husband to hospital, when she was successfully delivered by Dr. Jamieson, and recovered. Other cases of the kind are recorded; but our readers will probably have had more than their fill of horrors in those cases already cited.—*Brit. Med. Journal.*

Counterfeit Eggs.—The *Allgemeine Medicinische Central Zeitung* quotes the following from the *Neue Preussische Zeitung*.—It is well known that in America everything is counterfeited; the wooden hams and nutmegs sent from the New England States are well remembered. Eggs are now also counterfeited; and this manufactory is carried out on a large scale. On one side of a large room the reporter saw several large copper vessels, filled with a thick glutinous yellow mass, which a man was constantly stirring. This was the yellow of the egg—the yolk. On the opposite side were similar vessels, in which the white was fabricated. The eggshells were made of a white substance resembling plaster-of-Paris, by means of a blow-pipe, just as soap-bubbles are blown. After being dried in an oven, the eggshells were filled—first with artificial albumen; then with some of the artificial yolk; and lastly, with a little of the artificial albumen. The small opening at the end of the egg was closed with white cement; and the greatest achievement of modern civilization—the artificial egg—was ready. In appearance it resembled a natural egg; but, whether cooked or raw, it was indigestible and injurious to health.

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EDITORIAL.

PLASTER-OF-PARIS JACKETS ABROAD.

Plaster-of-Paris Jackets are the all-absorbing theme with the surgical fraternity of Europe at present. A few of these surgeons had already informed themselves of the decided improvement in the treatment of many spinal diseases as advocated so fully and frequently by our distinguished countryman, Dr. Sayre, but their information was neither extensive nor exact; consisted of the ideas gleaned from abstracts of lectures upon the subject, and from a single volume. The greater portion of the profession, however, had failed to come to any appreciative knowledge of these jackets, therefore were unskilled in their manufacture and their use, and did not recognize their necessity or their advisability. In America, this jacket is well understood, and its proper use encouraged, whenever indicated.

Dr. Sayre's visits to Europe, especially this present

triumphal march, threaten to revolutionize these matters there so far as he travels. As the first demonstrative advocate of the jacket, so thoroughly identifying himself with it as to reap even the glory of having originated it, he now feels an honest pride in extolling its merits, and expounding its philosophy, and when prevailed upon to present its claims, he proceeds in an enthusiastic and masterly manner to instruct as to its parts, and illustrate its mode of application. Upon such occasions the rich well of his experience supplies much interesting material for adorning his descriptions, and he recounts his triumphs with pride. His audiences are divided in their admiration, not knowing whether to bestow the greater praise to the apparatus or to the man, his tributes to both are so eloquent.

We gather from our foreign exchanges, and from a noble Boswellian effort by one of our own countrymen, lately abroad with him, that by dint of much persuasion he has been induced to appear before the Parisian doctors to advocate the jacket. Certainly from the description of present practices in France, his voice and his advice were needed, as this report states that French surgeons are ignorant of advanced surgery, and are devoid of human principles. Seldom have we been more surprised than at this statement of the backward stage of their surgery, and of their cruelty to patients; the one approaches ignorance, the other, barbarity.

From the accounts, Prof. Sayre's efforts were well received, and his manipulations were entirely satisfactory. Thus far we have reason to feel proud. We regret, however, that in all of these addresses, the name of Dr. Joseph Bryan was not mentioned; for the simple courtesy of recognizing Dr. Bryan's claim to having originated the idea of the jacket, which Dr. Sayre has so steadily advocated would not have dimmed the lustre of his own achievement, rather it would have gratified his own countrymen, who know the facts of its history, therefore honor both.

We sincerely regret that while revelling in the grand position of guide to the French surgeons, he could not resist the temptation to betray a less acceptable indication of his idea of American greatness—less acceptable because untruthful. We refer to this profanity while lecturing before such audiences, an entirely uncalled for and unjustifiable display, personal, but not national in any sense. "Cussing" is a fine art with certain grades of American people, but is not peculiar to our people. It is indulged in by the same classes of whatever nationality; by the class of people of limited vocabularies due to their lack of education, and by the class that have a foolish pride which tempts them to imagine that such language makes them

appear "smart." Their emotional nature masters the judgment of these latter people at times, and profanity flows forth, because sense has gone. These emotional creatures are not proficient "cussers," rather they are very awkward, and their profanity is not according to note or tune. Prof. Sayre, as a representative of the profession of this country, as president of its representative organization, owed it to his position to be gentlemanly, at least in the presence of an audience.

Now that he has returned to this country, should he persist in developing his profane acquirements, we hope that he will seek proper instruction and favorable localities for practice, that he may excel in this, as he has in the profession. We are unwilling to go upon the record with the journals, who applaud such indications of such greatness. While we may and do admire his skill as a surgeon, we assert that he would be a greater man, if his language was at all times manly.

SELECTIONS FROM JOURNALS.

INDICATIONS FOR THE USE OF DIGITALIS.

W. H. Day, M.D., in an article in the *Practitioner*, on neurosal affections of the heart in children, gives the following indications for the use of digitalis:

1. That when the heart's action is weak and intermittent, digitalis should be given with caution, whether the weakness and intermission depend on organic change, or whether they are purely neurosal.

2. If the heart's action is quick, though weak and intermittent, digitalis may be serviceable by reducing the frequency of the cardiac contractions and lengthening the diastole; if the heart is low and feeble in its impulse, digitalis ought not, in my opinion, to be administered alone, but should be given with a remedy like iron or strychnia.

3. In palpitation, from merely neurosal affections of the heart, with the heart's action hard and hammering, as in some cases of chorea and Grave's disease, bromide of potassium does good, and not digitalis. Hence, digitalis is unwarrantable in simple hypertrophy, but when dilatation is combined with it, is of service.

4. When there is weakness of the muscular structure, combined with palpitation, belladonna, or digitalis with bromide of potassium, or iron, or strychnia, are of service.

5. In palpitation produced by muscular effort, digitalis is of less service, and often does harm. In muscular inefficiency, when the heart does not empty itself at every systole, and arterial pressure is low, then it does good.—*Brit. Med. Jour.*

MORAL DIETETICS.

Dr. Bock of Leipzig writes as follows on the moral effect of different beverages: "The nervousness

and peevishness of our times are chiefly attributable to tea and coffee; the digestive organs of confirmed coffee-drinkers are in a state of chronic derangement, which reacts on the brain, producing fretful and lachrymose moods. Fine ladies addicted to strong coffee have a characteristic temper, which I might describe as a mania for acting the persecuted saint. Chocolate is neutral in its psychic effects, and is really the most harmless of our fashionable drinks. The snappish petulant humor of the Chinese can certainly be ascribed to the immoderate fondness for tea. Beer is brutalizing, wine passions, whiskey infuriates, but eventually unmans. Alcoholic drinks combined with a flesh and fat diet totally subjugate the moral man, unless their influence be counteracted by violent exercise; but with sedentary habits they produce most unhappy flesh sponges, which may be studied in metropolitan bachelor halls, but better yet in wealthy convents. The soul that may still linger in a fat Austrian abbot is functional to his body only as salt is to pork—in preventing imminent putrefaction."—*West. Lancet.*

TOBACCO.

The pernicious habit of smoking at any and at every time, as practised at the present day by persons in full health, is a useless, dirty, and an expensive one, and is too often injurious, in an indirect manner, by its acting as an inducement to drink. It is true that the more the wants of man are multiplied, the more industrious he becomes; but the use of tobacco is at once a dirty and an offensive luxury, and, with the exception of ardent spirits, there is hardly any article in which the money of the poor would not be better expended. There can, I think, be no doubt that the habit of smoking is spread more from the force of example than from any beneficial results produced by it. The most familiar of the physiological effects of tobacco are those experienced by young smokers, who rarely fail to poison themselves to a greater or less extent, nausea, giddiness, cold sweating and vomiting being the symptoms in their first trials. A celebrated writer, speaking on the effects of smoking, states that he has repeatedly asked the Turks what they had been thinking about whilst smoking. The answer was—"Of nothing." Not a single idea could be recalled to their minds. This may be a peculiarity of the Turkish or Moslem character, but I have heard fellow-students remark that they could do no real study while smoking. However, it is a known fact that some German writers invariably smoke while writing. If it be so conducive to thought, why should it be so exclusively enjoyed by the male sex? *London Chemist and Druggist.*

WATER-CLOSET CONVENIENCES.

It may be looked upon as one of the peculiar marks of refined civilization, when people and families carefully prepare for themselves such comforts as are noticed in the title of this article. The water-closet ought to be a luxury. It is worth far more than fine furniture in the parlor, and costs less. There can be little question that the prevailing female complaints are often induced, and always intensified by disorders of the digestive organs, and

the oppression in the lower regions that neglect in this matter causes. In the country the privy stands perhaps at the bottom of the garden, fifty yards from the house, approached by a walk bordered by long grass, which is always wet except during the sunny part of the day, overhung by shrubbery and vines which are often dripping with wet, and exposed frequently to the public gaze. In winter, snow-drifts block the way; and during rain, there is no shelter from any side. The out-house itself is fearfully cold, if not drifted half full of snow or flooded with rain. A woman who is comfortably housed during stormy weather will, if it is possible, postpone for days together the dreadful necessity for exposure that such circumstances require. If the walk is exposed to a neighboring workshop window, the visit will probably be put off until dusk. In either case, no amount of reasoning will convince a woman that it is her duty, for the sake of preventing troubles of which she is yet ignorant, to expose herself to the danger, the discomfort and the annoyance, that irregularity under such circumstances implies.—*Medical Summary.*

CASE OF DEAD FŒTUS IN UTERO FOUR MONTHS.

WITH DEATH OF THE MOTHER IN THE TENTH MONTH OF HER PREGNANCY.

BY

P. H. FLOOD, M.D.

Mrs. M. L., aged thirty-seven years, the mother of two children, became pregnant in the month of May, and continued in good health, performing her household duties as usual until the month of November when, seven months pregnant, she received an injury during a more than ordinary hard day's work, which resulted in a uterine hemorrhage, causing her to be taken to bed. A physician was at once summoned, and the hemorrhage arrested; but it was followed in a short time by a fetid and very offensive discharge per vaginam. This discharge continued during the months of November, December, January and February; the patient being confined to the bed the whole of this time. So far as I could learn, the treatment during these four months was restricted to giving the fluid extract of ergot, in the hope of expelling the fœtus, and in assuring the patient that at full term she would be delivered by a natural labor. As her general health was rapidly and surely declining, it became evident that if something was not done for her relief, a fatal termination would ere long be the result. It was in this condition, in the month of February, the tenth of her pregnancy, that I was called in to see her.

I found the woman much emaciated, having the appearance of one in the last stage of phthisis pulmonalis. After having obtained a brief history of the case, I at once made a vaginal examination, and, in so doing, was much impressed by the offensiveness of the discharge coming from the uterus. On making an exploration of the cervix, it was ascertained to be patulous, readily admitting the finger up to the os internum, but beyond that it was im-

possible to pass. The abdomen, exteriorly, was flaccid, dry, and in appearance the color of parchment, with brawny scales coming off, especially in the region of the umbilicus; the uterus being sufficiently large to contain a six-months' fœtus. It was a clear case of death of the fœtus in utero, and the indications in treatment were sufficiently plain, there being only the question as to the methods to be pursued. The ergot of rye was not tolerated by the stomach, and, besides, it had been given continuously for seven months by the attending physician, without benefit. Putting aside drugs, I determined to resort to instrumental means of extracting the fœtus; and on my next visit, the following day, a sponge tent of very large size was introduced for the purpose of dilating the cervix and exploring the cavity of the uterus. The dilatation from this was little or nothing, and, the following day, another and still larger tent was inserted, but with very little better result. On the third day, the largest tent obtainable (a rectum tent) was passed, but the impression made was in effect no more than in previous attempts, the internal os being decidedly firm and unyielding.

Desiring the assistance of another—believing there would be considerable difficulty in extracting the fœtus, and much danger from exsanguination—I called in Dr. Harry Sims, who very kindly consented to see her, and lend whatever aid was needed.

Accordingly, next day, we saw the case together, when she was put in the obstetric position, and an effort made to dilate the cervix with Barnes's dilator. The dilator was insufficient to overcome the rigid os internum, and was simply useless. We therefore concluded to crowd side by side, if possible, three or four tents into the neck of the uterus; and this was successfully accomplished, but not without difficulty, the afternoon of the same day. The next morning the internal os was sufficiently enlarged to justify an attempt at extraction of the fœtus. For this purpose, a long, narrow, curved forceps was introduced, and, after some manipulation, a number of small bones taken out, the ends of which were necrosed; together with considerable broken-down material, most of the soft tissues having apparently come away in the long-continued discharge, leaving only the bony structure behind. While operating, the patient, owing to her weak and debilitated condition, fainted, and further efforts for the time had to be discontinued. With the view of stimulating, hypodermic injections of whiskey were given every few minutes, until the patient rallied, but each day thereafter there was a perceptible sinking and failure of the vital forces. She had been so reduced by disease, that our efforts to extract the fœtus greatly exhausted her, and left her in so precarious a state, that subsequent interference was deemed entirely impracticable. The case had now resolved itself into a question of how long life might be prolonged, and, with that object in view, the stomach being in a very irritable condition, retaining nothing, recourse was had to the rectum, and injections of beef tea with ten grains of sulphate of quinia administered every four hours. After the second day the quinine was omitted, and the beef tea also, because of the irritation of the bowels, and the stomach again resorted to, giving freely stimulants and such nutrition

as was found it could bear. From this out she rapidly sank, and on the 6th of February died.

This was, no doubt, a case of separation of the placenta from some strain or injury received, which resulted in the death of the fœtus. The case presents some features of interest which we have thought may be worthy of mention, namely: This patient carried a dead child over three months, which the uterus, instead of making an effort to eject, clung to with unnatural tenacity. She died in the tenth month of her pregnancy.

Let us look for a moment at the physiology of labor, to see if there be an explanation in the various causes adduced, why this dead fœtus was not thrown off by the uterus by way of abortion, at or shortly after its death; or why, at the full period of gestation, natural labor did not come to her relief. The causes of labor some have centered in the fœtus itself, supposing it to have the power, when viable, to excite uterine action, so soon as it has arrived at full maturity. Others attribute the commencement of labor to the uterus having arrived at the limit of its distension, the reaction then setting in producing contractions of that organ; others, again, have thought that the occurrence of what, but for conception, would have been a menstrual period, with its attendant uterine irritation, may be the immediate exciting cause. Sir James Simpson believed that it is due to a disintegrating process occurring in the decidua and leading to a separation between it and the uterus, which process is sometimes imitated in the induction of premature labor by the operation of separating the membranes. Dr. Tyler Smith is of the opinion, that ovarian excitement is the law of parturition in all its forms of ova expulsion, but he does not tell us what is the cause of ovarian excitement, or why the ovarian impulse which occurs at this particular period is more successful in inducing expulsion than that which preceded it in the previous months of gestation.

Of all these hypotheses, there are none better adapted to the case in point than the theory that the uterus, having arrived at the limit of distension, reaction and consequent uterine action ensue; and the theory assuming the fœtus to have the power within itself to excite uterine action, so soon as it has arrived at full maturity. These two last afford the only reasonable explanation of the refusal of the uterus to expel its contents after a duration of more than nine months.

As for the other conjectures as to the causes of labor, they had all been put to the trial, yet labor did not result; namely, the occurrence of what, but for conception, would have been a menstrual period, with its attendant uterine irritation—the disintegrating process occurring in the separation of the decidua—and the views of Tyler Smith, that ovarian excitement is the law of parturition.

We must conclude, therefore, that the absence of uterine action at full term in this case, was due to either or perhaps all of the following conditions:

1. The fœtus not having arrived at full maturity and therefore wanting the power to excite uterine action.
2. The uterus not having arrived at the limit of distension, reaction was not induced, and, therefore, no uterine contraction.

3. The exhaustion necessarily following the detention of a dead fœtus in utero three months; the *vis medicatrix* was inadequate to produce uterine action and the consequent expulsion of the fœtus.

These reasons will doubtless explain why natural labor, or rather contraction of the uterus and expulsion of its contents, did not take place in the ninth month of pregnancy, according to the law of nine calendar months being the duration of pregnancy. But what explanation can be had as to why nature did not relieve herself by producing a miscarriage in this woman? It is well known that when there is a separation of the membranes, a detachment of the placenta, or the death of the fœtus in utero, miscarriage is looked for as an indispensable consequence. Here were all the conditions required for such a result. A continued discharge of pus from the uterine cavity for more than three months, a detachment and separation of the membranes and placenta, the liquor amnii evacuated, collapse of the distended uterus and retraction of abdomen, and withal no uterine contractions, the patient never having experienced one pain to uterine action.

During the whole time there was a persistent inertia, due doubtless to an enfeebled condition of the patient, produced in the first instance by excessive loss of blood, and maintained by a slow process of toxemia, from absorption of decomposed material through the uterine tissues, which eventuated in a state of asthenia going on a fatal termination.—*Western Lancet.*

NEWS ITEMS AND NOTES.

Frozen Medicine.—At the recent meeting of the British Medical Association, Dr. Edwyn Andrew called attention to a new method of using ice. He thought that the effects of the cold could be supplemented by combining with the ice during the process of freezing the active principles of drugs. In this manner ice may be rendered highly antiseptic, caustic or styptic. In diseases of the throat and stomach, and in hemorrhage from the internal organs, ice might be pleasantly used to relieve symptoms, and at the same time to convey medicine or food to the stomach, when the latter would not retain them in any other way.

This hint is one of great practical importance, and an ice-cream freezer might be used with advantage in carrying out the suggestion. Many articles are also relieved of their unpleasant taste by this method.

"St. Virchow's Well."—That the great pathologist and opponent of dogmatic belief should himself become a miracle worker is a funny satire. Yet such is the fact. When he went, last spring, to look at Dr. Schliemann's diggings at old Troy, the rumor soon spread that he was a renowned healer of disease. Consequently, sick and infirm people flocked in daily increasing numbers to Hissarli, from far and wide. There are no roads and no vehicles. So the people came on foot, or on horseback, or riding on asses; even women coming thus from a long distance. Very infirm people were brought in great baskets slung across a horse's back, sometimes one on each side, by way of balance. The patients used to range themselves in a long row, opposite the wooden hut in which Virchow lodged, each waiting patiently until his or her turn came.

But the joke remains to be told. While there Virchow had a well dug in the old bed of a stream, now dry, to obtain good water. Since he left, Dr. Schliemann writes that the inhabitants "regard the excavation and spring with veneration, and have fenced it around with stones. The spring is called 'the doctor's well,' and magical virtue is ascribed to it. Every one comes to draw water from it."—*Med. and Surg. Rep.*

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and objects of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

THORACIC ANEURISM—EMPHYEMA.

A Clinical Lecture Delivered at Bellevue Hospital, October 10th, 1879,
by

AUSTIN FLINT, M. D.,

Prof. of Practice of Medicine at Bellevue Hospital Medical College.

Reported for THE HOSPITAL GAZETTE and Revised by the Lecturer.

The subject of thoracic aneurisms affecting the aorta, is one of interest and importance. They derive additional interest and importance from the fact that, especially at first, they are apt to be overlooked, and in fact this patient was treated for pleurisy. It is important to bear in mind certain symptoms and effects of thoracic aneurism in order that when they occur we may at least suspect its presence. I shall not go into the surgical part of the subject of aneurism, but shall limit my remarks to those affecting the arch of the aorta; and the point at which we are most apt to meet with them is at the junction of the ascending and transverse portions of the arch. We may, of course, have every variation in size, from the smallest appreciable enlargement to one the size of a large orange; they are, also, found in the transverse and descending portions of the arch; at the latter situation they are rare, but the case which I shall show you to-day is one.

The symptoms are chiefly those denoting pressure on the different neighboring parts and they vary with the situation of the aneurism and the direction in which it progresses. If it is at the junction of the ascending and transverse portions of the arch, there may be notable congestion of the face and upper extremities while nothing of the kind is found in the lower limbs; therefore, if you meet with a patient who has cyanosis of the face and congestion of the upper extremities only, you should immediately suspect the existence of, and examine him for, an aneurism, especially if he is over forty years of age. The aneurismal sac may take such a direction as to press on one of the primary bronchi, and on listening to the patient's chest you find that over one of the lungs there is a very feeble respiratory murmur, while that of the other is abnormally loud. If it should press on the trachea you will find the respiratory murmur weak all over the chest and there will be difficulty of breathing. Or, the patient may have loss of voice, and on examining him with the laryngoscope you find paralysis of one of the vocal cords, caused by pressure on the recurrent laryngeal nerve. Or he may have contraction of the pupil from pressure on the sympathetic nerve. You have, therefore, a variety of symptoms, the occurrence of any of which should direct your suspicions toward aneurism of the arch of the aorta, and lead you to make a search for it.

I shall now read to you the history of this patient:

"Michael Murphy, age 41, a cooper by trade, was admitted October 12, 1879. All his family are perfectly healthy. The patient has always been very strong, and for nine years was a fireman doing a good deal of hard running and lifting. He has always drunk a great deal. Ten years ago he had syphilis, chancre, cutaneous eruptions, falling out of the hair, iritis, and pains in the bones." (I may remark here that if you find an aneurism in a person under 40, you may be pretty sure that your patient has had syphilis.) "About the first of August, while engaged in work requiring heavy lifting, he began to feel shooting pains in the left side and arm, especially toward night, when he felt very much exhausted. He never had a sensation as if something was giving way in his chest. He had shortness of breath quite marked, and a slight cough. He lost considerable flesh. He remained in about the same condition till October 8th; that night he had a terrible pain in the left side and great dyspnoea, and was able to sleep but little on that and on the ensuing night. He has had no difficulty in speech, no vomiting, and never had any trouble with his urine.

On admission, his symptoms were as stated above: dyspnoea, slight cough, shooting pains in the side and arm; appetite fair, bowels regular, temperature A. M. 99°, P. M. 100¼°; urine dark, alkaline, sp. gr. 1024, no albumen. On inspection, there is little or no expansion of the left side of the chest. A prominent swelling is seen on this side below the clavicle, which is seen to pulsate. The apex of the heart is seen strongly beating in the sixth intercostal space, and apparently moving from right to left. On palpation, vocal fremitus in the lower part and absent above. On percussion, flatness is found above, in front and behind, while below it shades off into the normal resonance. On auscultation, the respiratory sounds are absent in the upper part of the chest, feeble below, and somewhat bronchial behind. There is no cardiac murmur, but the heart-sounds are heard with great distinctness over the tumor. There is no bruit."

You perceive at once this projection in the upper part of the chest, as well as the movement of the apex of the heart in the sixth intercostal space. Here we have undoubtedly a certain amount of hypertrophy, easily accounted for, as the tumor produces an obstruction to the circulation, and the heart compensates for it. The situation of the apex is measurably accounted for by the downward pressure of the tumor, although part of the displacement is no doubt owing to the hypertrophy.

The pressure of the tumor on the nerves is apt to cause pain in the upper extremity. Generally the patient also complains of a boring, not very severe, persistent pain in the side of the aorta, caused by pressure against the walls of the chest, which gradually leads to their absorption, and the protrusion of the tumor. But suppose there was no bulging, but the patient presented the symptoms which you have just heard: We listen to the chest and find on the left side very little respiratory murmur—nothing else—there must be something pressing on the bronchus, and that is much more likely to be an aneurism than anything else. In the case before us we have no pressure in the veins or on the recurrent laryngeal nerve. There is quite marked dul-

ness on this side, and it was probably this that led to the diagnosis of pleurisy.

Now as to the local signs: here is the projection, which is dull on percussion; the percussion must be performed very carefully, as the tumor is sensitive. Placing my fingers on it I feel the pulsation, and you can see my fingers rise and fall alternately. The situation of the tumor and its impulse alone are sufficient for the diagnosis. I listen to it and hear *no murmur*. Does this militate against the fact of the existence of an aneurism? By no means; the bruit is very often wanting; indeed, Dr. Stokes said that it is more frequently absent than present. This is probably not so. On the other hand, all cases in which there is a murmur are not aneurism; it may be caused by other conditions in the artery. There is no valvular lesion, as if there were one we should hear it without difficulty, on account of the cardiac hypertrophy. If there were no projection, still you might confidently assert the presence of an aneurism, if you had, what is not met with in this case, a thrill communicated to the hand, dulness over a circumscribed area, deficient respiration over the same area, with bronchial respiration around its borders, the diagnosis of aneurism would be very strong. The normal heart-sounds may be abnormally transmitted, and there may be spasm instead of paralysis of the glottis from pressure on the recurrent laryngeal nerve. Aneurism is by no means a rare disease, still it is so rare that its existence is not always kept in mind by a succession of cases.

This might burst at any moment; and I cannot refrain here from relating a case which I saw some years ago. I went some distance into the country in Connecticut to see a patient who had dyspnoea. The history was simply that of frequent attacks of dyspnoea, which could only be accounted for by supposing that he had asthma. I listened to his chest,—none of those dry râles which are usually heard even in the intervals between the attacks in those who are subject to asthma. His physician assured me, however, that he had heard these râles during the attacks and, as I could find no other explanation, I was compelled to agree that the patient had asthma. I stayed over night at the house, and as I sat down stairs in the course of the evening I heard the patient breathing with a croupy sound. This aroused my suspicions of the existence of an aneurism, of which I confess, I ought to have thought before. Spasm of the glottis is a rare affection in adults and generally arises from pressure on the recurrent laryngeal nerve by an aneurism. I again examined the patient but still failed to find any of the signs of aneurism; but this spasm of the glottis made me strongly suspect its existence; and I left a note for the physician stating my suspicion. Some weeks later I was sent for again; the patient had had a hemorrhage. I made another examination, but found nothing except a little dulness on percussion. The patient had a brother through whose influence he was transferred to the care of a homeopathist. The latter said that he had dyspepsia and that all that he needed was exercise! After that the patient came to the city twice. Shortly afterward he had another large hemorrhage and instantly died. At the post-mortem examination it was found that there was a small aneurism of the

aorta, projecting in such a manner as not to give any signs, which had opened into one of the primary bronchi.

The prognosis is extremely indefinite; there may be a fatal hemorrhage at any moment or it may last for years. But we can do much in the way of treatment. Tufnell of Dublin, proposed a plan enjoining absolute rest a number of months, with a diet strictly nutritious and sufficient for the wants of the system but nothing beyond. I tried to carry out this plan here, but failed for want of cooperation on the part of the patient. There is a remedy which has, in certain cases, a marvelous effect. This is the iodide of potassium. How it works I don't pretend to say. We know that if it cures it must produce what sometimes takes place spontaneously—a deposition of layers of stratified fibrin. This patient has been put upon this drug, and it will be increased to the point of comfortable tolerance.

I want to show you a patient who gave evidence on physical examination of having liquid in a circumscribed space in the chest. A trocar was introduced without result, and afterwards a hypodermic inserted and withdrawn full of fetid pus. Twice again we tried with the trocar and again unsuccessfully; it may have been that we pushed the instrument completely through the collection of pus, or that some tough layers of fibrin were carried before its point; at any rate we decided to let it alone. Finally he began to spit up a fetid pas, showing that the empyema had perforated the lung and discharged into a bronchial tube. This continued for some time, the amount of pus expectorated became gradually less and has now almost ceased, and has entirely lost its fetid character. There is still some flatness on percussion. The most probable explanation is that there was a spot of pulmonary gangrene; this I infer from the fetid character of the pus. This patient will probably get well.

I recently had under observation another case of a distinguished gentleman of this city which was very similar to this. In him the collection of fluid was found following acute symptoms and at the first aspiration fifty to sixty oz. of pus were drawn off. In him, too, perforation into one of the bronchial tubes took place and he continued to expectorate pus for a long time; his appetite returned, he gained in strength, and went abroad; while there he had another attack of purulent expectoration. Since then he has been doing well and I have every reason to hope that he will recover.

ORIGINAL ARTICLES.

DISLOCATION OF THE LEFT HAND BACKWARDS, COMPLICATED WITH A SEPARATION OF THE DISTAL RADIAL EPIPHYSIS.

BY

J. S. WIGHT, M.D.,

Professor Surgery at the Long Island College Hospital.

On the evening of October 14th, 1879, Dr. C. D. Beasley, house-surgeon, requested me to see a patient in the accident room of the Long Island College Hospital, where he had just been admitted with an injury to the left wrist joint. The house-

surgeon thought there might be a backward dislocation of the hand. I made the following observations, which were noted by the house surgeon; Mr. Plympton, the ambulance surgeon, being present:—

1. The patient, M. H., a boy, fourteen years of age, was kicked down cellar by a man: he does not know how he fell or how he struck. There was no contusion on the hand to indicate where the violence was applied.

2. The concave floor of the base of the radius could be distinctly felt.

3. The double obliquity of the floor of the base of the radius could be distinctly made out.

4. Even the posterior projecting lip of the base of the radius could be reached with the finger by a little gentle pressure.

5. The conjugate diameter of the base of the radius was about one inch, nearly corresponding with the conjugate diameter of the base of the *right* radius.

6. The conjugate diameter of the left carpus, which could be distinctly traced, was about one-half inch.

7. The carpus rested on the back of the base of the radius—overriding it about one inch.

8. The fore-arm was somewhat more than semi-pronated, and could not be much rotated by volition.

9. The fore-arm was nearly completely extended.

10. The hand was slightly flexed; somewhat in-rotated, and considerably adducted.

11. The fingers were semi-flexed.

12. Voluntary motion of the fingers and hand were lost.

13. The radial artery could be felt running across the outer surface of the base of the radius obliquely from above, downward and backward.

Dr. Beasley took hold of the upper part of the patient's fore-arm to make counter extension, while I took hold of the base of the radius with my left hand, and the hand with my right hand, making firm extension downwards and forwards, and at the same time pushing backwards on the base of the radius. During the efforts at reduction the following points were observed, namely:—

1. The carpus and the hand came somewhat slowly and without a "click" into place: The reduction did not appear to be very perfect.

2. During the reduction a "grating" sensation was felt—not like *bony crepitus*: and the distal portion of the base of the radius began to be displaced backwards.

3. When we let go the fore-arm and hand of the patient, there supervened the well-known silver-fork deformity of fracture of the base of the radius.

4. Preternatural mobility of the fragment of the base of the radius was then readily demonstrated: previous to the reduction of the hand there was no preternatural mobility of the base of the radius.

5. The hand was inclined inward toward the ulnar side of the fore-arm:—This was not according to Colles' Fracture.

6. The hand on the injured side could not be abducted; it could be put in line with the long axis of the fore-arm.

7. The hand on the uninjured side could not be

abducted beyond a line continuous with the long axis of the fore-arm.

8. The fragments required splints and bandages to keep them in place.

The following remarks may now be made in regard to this case:—

1. *There was a complete dislocation of the hand backwards*: of this fact there could be no doubt.

2. There was a separation of the epiphysis of the lower end of the radius: (1) previous to the reduction of the dislocation this fact was not made out; (2) after the reduction of the dislocation this fact was plain.

3. The upper and somewhat uneven surface of the epiphyseal fragment must have been held by the carpus and the tendons of the flexor muscles against the somewhat uneven surface of the lower end of the upper fragment so firmly as to prevent preternatural mobility previous to the reduction of the dislocation: after the reduction the epiphyseal fragment was loosened and could move and be moved.

4. The shortening of the limb was due to the carpus overriding the radius—for the fragments of the radius did not override.

5. The dislocation and the epiphyseal separation must have occurred at the same time; and the violence must have been applied to the palm of the hand, while the hand was slightly extended beyond a line with the long axis of the fore-arm.

6. After the reduction of the dislocation the functions of the hand and the fore-arm were improved.

CHLORATE OF POTASSA IN THE TREATMENT OF PULMONARY PHTHISIS.

BY
JOHN R. PARTENHEIMER, M. D.,
Philadelphia.

At the meeting of the American Medical Association in June, 1860, the late Dr. E. J. Fountain, of Davenport, Iowa, submitted to the Section on Practical Medicine, a paper on the treatment of Pulmonary Tuberculosis by the Chlorate of Potassa, in conjunction with remarks on Ozone and Oxygen as therapeutic agents. This paper was published in the *American Medical Monthly* for Sept., 1860.

A few years since I was connected with two of the largest dispensaries in Philadelphia, viz: the Philadelphia and the Northern. I saw a great many cases of Pulmonary Phthisis, in its various stages. I tried pretty much all the numerous remedies suggested for its cure, without much success. Having read of Dr. Fountain's success with the chlorate of potassa in this disease, I determined to give it a fair trial.

My first patient was a man *æt.* 21, who had been healthy until two years before, when he contracted a bad cold, which laid him up for three weeks. It left him weak, but he returned to his work—that of blacksmithing—and worked for five months, when he felt so weak that he was compelled to give up work. About this time a very severe cough set in with considerable frothy mucous expectoration, he emaciated very rapidly.

He was treated by four or five physicians, with very little improvement. He had been so dosed with cod-liver oil and whiskey, that when I saw him the sight of them turned his stomach.

When I took charge of him he had lost forty pounds of flesh in two years, had severe night sweats and at times profuse diarrhœa; he estimated that he expectorated one pint of muco-purulent matter in the twenty-four hours. He could not rest at night for the sweating and the intolerable cough. His appetite was wretched. On physical examination I found a large cavity at the apex of the left lung, and dulness on percussion with harsh respiration at the apex of the right lung. His pulse ranged from 100 to 110 in the minute. Respirations 26 to 30. I did not take his temperature. At this time he had profuse diarrhœa. I placed him on chlorate of potassa 15 grs. four times a day.

He improved very rapidly under this treatment, the diarrhœa improved much in the two days, and ceased entirely in two weeks, the cough and expectoration went on improving, and at the end of six months had entirely disappeared. I kept him on the chlorate of potassa for six months; in that time he gained twenty pounds, had a good healthy color, good appetite; he said he felt like himself again. During the last month, in addition to the chlorate of potassa, I gave him twenty drops of the tinct. of the chloride of iron, thrice daily.

CASE 2.—Man, æt. 23, had been under the care of a friend of mine for three months; when I took charge of him he had diarrhœa, night sweats occasionally, and a very troublesome cough; had emaciated very much in the last three months. I treated him about three months with the chlorate of potassa, with almost complete relief of his symptoms. At this time I changed districts with the physician who first had charge of him. He placed him on cod liver oil, whiskey, &c., and he treated him for two months. He then moved into my district; I took charge of him again, and placed him on the chlorate of potassa.

When he came under my care this time the expectoration was very profuse, with considerable diarrhœa. After two months treatment, with the addition of iron, I discharged him able to go to work.

CASE 3.—Man, æt. 27, had been in bed for some time, expectorated freely, profuse diarrhœa, was very much debilitated; placed him on the chlorate of potassa, which relieved his diarrhœa and expectoration very much, and made him more comfortable. He said the medicine I gave him made his breathing better, and that he could get more rest at night; but he succumbed to the disease two years after I first saw him. In this case, when I discontinued the remedy, diarrhœa would set in, but two doses a day would keep it in check.

I have treated over fifty cases of pulmonary consumption with this remedy. In the first stage, when we have debility, slight hacking cough with slight frothy mucous expectoration, increase of body temperature, pulse 90 to 100, respiration 22 to 24, I believe the chlorate of potassa will prevent the further spread of the disease and cure seventy-five per cent. of the cases. And in the second stage, when there is profuse diarrhœa, expectoration large, night sweats, &c., no medicine has answered as well in my hands as this remedy in palliating the symptoms and prolonging life.

Dr. Flint, in his article on the chlorate of potassa

in the *American Journal of Medical Sciences*, for Oct. 1861, condemns the use of this medicine in tuberculosis, on insufficient evidence, I think. He reports fourteen cases in which he tried it. He says in only one case was the tuberculous matter small, and that was the only case cured. In the remaining cases the tuberculous matter was abundant, and in several it was large. In thirteen cases the remedy was used, for from ten days to seven weeks; in the case that was cured it was used for two months. He says it does not produce diarrhœa, and may be well borne when diarrhœa is present in cases of phthisis.

I have found that large doses, say from $\frac{1}{2}$ to 1 ounce daily, produced gastric disturbance, and in some cases hæmoptysis, but in 15 gr. doses four times daily, I have never had any of these symptoms to arise.

Dr. Lawrence McKay, of Rochester, New York, in the Transactions of the Medical Society of the State of New York for 1866, on "Thompson's Margin as a diagnostic sign in phthisis," says in this spanæmic condition of the system, which gives rise to this peculiarity of the gingival margin, I contend that there is a lack of iron, and also of the solid elements of the blood, peroxide of iron being one of its constituent parts, along with the different salts. It struck me forcibly on reasoning on this matter that some alterative and disinfectant salt, such as the chlorate of potassa, in conjunction with iron, would be the remedy for that condition of the system, which gives rise to this condition of the margin. I have been in the habit of combining the muriated tincture of iron and chlorate of potassa, and prescribing them in these cases with perfect success.

And if we see the patient when the margin is first discoverable, by putting him on the use of chlorate of potassa and iron, and continuing the remedy long enough so as to obliterate this margin entirely, we shall effect a permanent cure.

Dr. T. C. Moffat, Seaman's Retreat, Staten Island (*American Medical Monthly*, Dec. 15, 1860) says one patient in the advanced stage of phthisis has been using the chlorate of potassa for eight days. Before commencing this treatment his breathing was difficult and hurried upon the slightest exertion, his lips were livid, extremities cold. He was able to get but little sleep, owing to an almost constant cough; and his appetite never good, was sometimes so poor that he could take no nourishment at all for an entire day. His general appearance now strongly confirms the testimony which he gives, that he sleeps nearly all night undisturbed. The pain and constriction of the chest are much relieved, and expectoration formerly quite profuse, has ceased almost entirely. His condition in every respect is materially improved. Two other patients also in advanced phthisis, have been under this article but three or four days. One of them speaks confidently of decided improvement, and says that he breathes freer and sleeps and eats better. None of them complain as yet, of any inconvenience whatever from the use of it.

Dr. Harkin in the *Dublin Quarterly Journal of Medical Sciences* for Nov. 1861 says: For a period of nearly eighteen months I have been prescribing

chlorate of potassa for every variety of scrofulous disease and for consumption in its various stages, and although, for a disease of such protracted character as consumption, the period of observation is too limited to allow of complete or extensive statistical results, yet I consider I am justified in stating that in this simple remedy in conjunction with the ordinary hygienic, dietetic and moral means, a specific will be found for consumption in its first and second stages; and that for the last it will be found most potent in controlling the hectic symptoms and the colliquative diarrhoea, without increasing the perspirations, as in the administration of ordinary astringent remedies. I have never found any bad effects to follow its use. I have learned to give it without fear in every stage of the disease.

I claim the following good results for chlorate of potassa:

1st. It improves the appetite.

2nd. Allays cough and diminishes expectoration.

3rd. Checks diarrhoea and sweating.

4th. Restores the tone of the nervous system.

I would state that it is not my intention to supersede suitable food, good hygiene and other valuable and important measures.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

PNEUMONIA, EMPYEMA AND PERICARDITIS.

James C., age 43, machinist, was admitted Nov. 12th, 1878. He had been out of employment for the last five or six months, during which time he had led a vagabond sort of a life, sleeping out of doors with little or no food, in short, had been a "tramp." He has been a hard drinker all his life. Had gonorrhoea and chancre (chancroid) (?) twenty years ago; denies all secondary symptoms. He was always a healthy man until the commencement of his present trouble; never suffered from cough or any chest trouble.

About three weeks ago he was out of employment, could get nothing to eat; felt weak and cold, especially in the morning, until the sun was well up. He had some night-sweats, and dates his sickness from this time. These symptoms of weakness, chills and sweating continued up to his admission. Two and a half weeks before his admission he was caught between two bales of cotton which compressed his chest and abdomen. The next day after the injury he felt a pain in the right side which had continued, with occasional remissions, up to the present time (Nov. 12th). Two or three days after the injury he passed about half a pint of blood per rectum; none since, nor has he had any other symptom of abdominal injury. The urine was normal, so far as he knows. Soon after the injury, he began to have a cough, with greenish-yellow expectoration. A week ago he had a diarrhoea lasting for one day; the passages were soft and yellow; since that time his bowels have been normal. About five days ago he had an attack of epistaxis for which he could assign no cause.

On admission the patient looks to be about thirty,

is a little dazed and quite hard of hearing. The deatness, he says, he has had two or three months. His face is flushed, especially over the malar prominences. The respirations are 38, and the pulse 120 per minute. The temperature is 102.4°. He is pretty well nourished. The skin is covered with blotches.

Physical examination reveals *anteriorly* slight increase of vocal fremitus on both sides. Percussion note on the right side is wooden or flat below the nipple, and tympanitic above; on the left side it is extra resonant. On the right side the breathing is bronchial and broncho-vesicular; on the left side the respiratory sounds are exaggerated. *Posteriorly* on the right side the vocal fremitus is absent below, and slightly exaggerated above. The percussion on the right side is flat below and dull above; on the left side the sounds are exaggerated. There is absence of respiratory and voice sounds on the right side below, bronchial breathing, with fine râles, and increased vocal resonance above. On the left side the signs are those of a normal lung doing extra work, except at the apex, where there is bronchial breathing, which appears to be conveyed from the right side.

The heart is normal, so is the liver, except that it is pushed up by the distended intestines. The abdomen is tympanitic. There is no tenderness and no gurgling. Some fluid was drawn from the right pleural cavity with a hypodermic syringe; this was slightly yellow and contained pus globules, but the latter were not very abundant.

He was ordered a nutritious liquid diet and fifteen grains of quinine, t. i. d.

Nov. 15.—Is hardly as well as three days ago; though still quite strong he is perceptibly growing weaker. Last night he was delirious. The signs of fluid in the pleural cavity still remain. Bronchial breathing is still heard over the apex of the right lung. He can lie with the head low. His appetite is very good. He does not sweat very much; the tympanites is less. The bowels are regular, pulse 88, strong and regular; respiration 32. The temperature does not vary much from 102°. He coughs less but spits up a pretty large amount of muco-purulent fluid.

Nov. 17.—He has œdema of the lungs. A loud double pericardial friction sound was heard for the first time this morning; in the afternoon it was not so distinct. The pulse was pretty strong but dichrotic. The respiration was not very rapid (25-30) but there was a little hacking cough with each expiration. The fluid in the pleural cavity was more purulent.

He was cupped over the front of the chest and ordered half an ounce of whiskey every hour.

Nov. 20.—Is apparently a little better. The œdema and bronchial râles have disappeared. He expectorates a copious yellow viscid sputum, streaked with blood. He is continually talking of his former business and is quite noisy at night. He eats well; passes his urine voluntarily. There are signs of a commencing bed-sore over the sacrum. The pericardial friction sound is still present and double. The fluid in the right pleural cavity appears to be diminishing. Yesterday fifty-six ounces of sero-pus were drawn off from the right pleural

cavity with the aspirator. After standing twelve hours it appeared to be about one quarter pus. The symptoms are about the same as before aspiration but he is a little easier and he slept better last night. No bad symptoms followed the operation. To day he is very drowsy but can be aroused; delirium is much less. The temperature has ranged from 100 to 104½ except to-day, when it was 99¾ in the morning and 97 in the evening. The respirations are thirty-two to the minute and have still a slightly explosive expiration. The physical signs are about the same as before aspiration. There are bronchial breathing at the apex of the right lung and a few crepitant and subcrepitant râles over the entire lung; it is doubtful whether these are in the lung or pleural cavity. The treatment of whiskey and quinine was continued.

Nov. 23d.—Since last note the temperature has varied from 100° to 101¾°. This morning he died.

Autopsy, nine hours after death. *Pericardial sac* covered a large area and contained four ounces of serum. The visceral and parietal layers of the pericardium were covered with a fibrinous exudation, occurring as papillæ two or three lines in height, some stretching across between the two layers. These elevations were very thick and showed beautifully what is called "a hairy heart."

The *heart* was about one and a half times its normal size. The valves were normal. There was a slight layer of fibrin on the endocardium of the left ventricle.

Lungs.—In the right pleural cavity was a large amount of sero-pus with a layer of pus about half an inch thick on the pleural surface below. The left pleura was normal. The right lung was compressed with a little old phthisical consolidation and a small cavity in the centre of the upper lobe; the rest of the upper lobe was the seat of a bronchopneumonia; the middle and lower lobes were compressed. The left lung was normal.

The *liver* and *spleen* were enlarged. The capsule of the *kidneys* was slightly adherent and the interior slightly congested. The stomach was the seat of a slight inflammation.

In the *brain* there was found a subacute meningitis with an exudation of serum beneath the pia mater, separating the convolutions, especially on the convexity; otherwise normal.

SOCIETY PROCEEDINGS.

MEETING OF THE PATHOLOGICAL SOCIETY, OCTOBER 22, 1879.

(Reported for THE HOSPITAL GAZETTE.)

The meeting was called to order at a little after eight o'clock P. M., the president, Dr. E. L. Keyes in the chair.

The minutes of the last meeting were read and adopted. There were no reports of committees. Dr. Seguin presented a number of slides prepared by Dr. Schmidt of New Orleans to illustrate the

PATHOLOGY OF YELLOW FEVER.

He referred to an article written by Dr. Schmidt in February, 1879, in which the latter gives the results of thirty autopsies all carefully made, every organ in the body having been examined microscopically. There was found extreme hyperæmia of all the organs,—the brain, spinal cord, medulla oblongata, stomach, supra-renal capsules, etc., and in certain parts this injection of the blood-vessels was so great as to simulate an artificial one. There was also fatty degeneration of the important organs. I have looked at these specimens and must confess that owing probably to changes that have taken place in them since their preparation, there is not enough granular appearance to justify the application of the term pathological to them, as it is well known that in the normal condition a certain degree of granular appearance is present. Still, as Dr. Schmidt is very positive on this point, it must have been so at the time of preparation. The slides show the fatty change in the epithelium of the liver and kidney and in the latter Dr. Schmidt also found casts. In a section of the sympathetic is shown the degeneration of large numbers of the ganglionic bodies. Dr. Schmidt has examined the blood of patients with yellow fever for the presence of bacteria but the investigation always gave negative results—there were never any bacteria. He also had occasion to examine parts which were imperfectly hardened, and in these he found bacteria, but in perfectly hardened specimens he never found them.

Dr. Satterthwaite also had some microscopic specimens obtained from a case of yellow fever on which he recently made an autopsy—a rare opportunity in this part of the country. The typical lesion was the fatty affection of the liver—a fatty degeneration as well as a fatty infiltration of the hepatic cells. In addition he had seen a good deal of scirrhotic change—the connective tissue surrounding the individual cells. The epithelial cells of the kidney were granular. As to the question of the presence of bacteria, he had under the microscope a section containing a very good specimen of bacteria, made evident after being stained with hæmatoxylin. Many of them are rod-shaped, the bacterium termo being made especially evident when they are flattened out. In the gastric follicles he had found the epithelium granular. Such bacteria as were seen in the specimens were often met with and he was not disposed to attribute anything specific to them. In answer to a question by Dr. Amidon, Dr. Satterthwaite stated that black vomit was present in his case shortly before death.

Dr. Amidon said that while he was an interne of the New York Hospital he had made an autopsy on a case of yellow fever which had died there with symptoms of suppression of urine and black vomit. He had found all of the changes spoken of by Dr. Schmidt and Dr. Satterthwaite, but had met with no changes in the mucous membrane of the stomach. In the kidney he had found many of the straight tubules with their epithelium granular and packed with pigment. In the liver he had found the changes spoken of by Dr. Satterthwaite and Dr. Schmidt.

Dr. Seguin called attention to one of the speci-

mens of fatty degeneration of the liver in a patient who had died of dysentery, in which the fat was aggregated in masses and was not distributed in granules, as in yellow fever, the appearance in the two cases forming a marked contrast.

Dr. Lange presented a piece of

GANGRENOUS LUNG

Which he had removed from a woman about forty years of age, who had been confined on the night of Sept. 12th and 13th, the labor being in all respects normal.

On the evening of the next day she had an attack of hæmoptysis, and complained of pain in the side and dyspnoea; she also had a cough with fetid expectoration. On the 16th of September there was noticed dulness over the left lower lobe. On the 21st the patient complained of chilly feelings, but the temperature was not so high as it had been. October 6th the sputa were foul-smelling as before, and she expectorated necrotic pieces of lung. October 15th there was expectoration of a large quantity of fetid pus. October 20th I operated for empyema and let out about one and a half quarts of stinking pus and finding something stick in the opening I seized it and pulling upon it, was much surprised to see this large piece of lung come out. The patient is still in a precarious condition, though she has somewhat improved since the operation; there is now scarcely any discharge or expectoration, and it has but very little odor; the temperature is now 102° to 103° ; previously it was 104° .

REMOVAL OF TESTIS.

Dr. F. D. Lente presented a specimen of a testis which he had removed from a patient on Monday, the 13th inst. The patient was a young man twenty years of age, of a healthy family, and with no suspicion of syphilis attaching to him.

In June, 1878, he had noticed a tumor of the testicle commencing at the bottom of the scrotum and increasing slowly in size; its progress was very much like that of a hydrocele.

Last July it had grown to be nearly as large as it now is, and he applied to a physician for relief. The latter punctured it and obtained about two tablespoonfuls of gummy matter. He put him on the iodide of potassium and made an external irritant application, and for two weeks it remained stationary in size. I first saw it at the end of that time. It measured seventeen inches in circumference, felt solid, contained no nodules, but had an elastic feel. I punctured it with a hypodermic trocar, but obtained no fluid.

Two weeks later I received a message informing me that it was growing rapidly, and that the parents were anxious for an operation. I found him grown much worse, his condition was feeble, his pulse was 140, and he was rapidly running down. I removed the tumor, found a little abscess at the bottom of the scrotum, the scrotum itself around this being infiltrated, and this portion I also removed. At first I thought the tumor was fibro-cystic, but afterwards concluded that it was malignant.

On laying it open I found at the top an abscess, below this the tumor was softened, while the lower portion was firm and contained cartilaginous nodules.

There was no history of injury. I did not examine the retro-peritoneal glands. I am in doubt as to the nature of the tumor, and brought it here in order to obtain the opinion of the members.

On motion, it was referred to the microscopical committee for investigation.

Dr. Keyes said that he had removed two tumors similar to the one presented by Dr. Lente, though smaller; one from a young man of twenty, the other from one of eighteen. The disease had returned in the retro-peritoneal glands, and the patient had died. In his opinion the tumor was undoubtedly cancerous.

Dr. Mary Putnam Jacobi presented specimens of

ACUTE MILIARY TUBERCULOSIS IN A CHILD.

The baby had been brought to the dispensary of the Mt. Sinai hospital on the 22d of Sept. The mother said that it had been quite healthy up to August last, when it had the measles, from which it had seemed to freely recover. In a week or two, however, it suddenly grew worse, became yellowish and feverish, had a cough and little fever at night. When first seen there was slight dulness at the apex of the left lung in front, noticed also behind, and extending to the root of the lung. Here the respiratory sounds were harsh. Its temperature was $103\frac{1}{4}^{\circ}$ in the rectum; there was no diarrhoea, but the abdomen was tympanitic; the pulse was accelerated, but in other respects normal. The child cried constantly, wanted to eat, but had no thirst. It was evident that the question of diagnosis lay between acute miliary tuberculosis and typhoid fever. There had been an eruption which, the mother stated, began at the commencement of the illness. This consisted of minute brownish-red spots, about one eighth of an inch in diameter, slightly elevated above the skin, covered with fine scales, most abundant on the nates, and resembling a syphilide; it was the only possible symptom of syphilis. Quinine was given. September 24th, the respiration was less harsh, the temperature was $102\frac{3}{4}^{\circ}$, the spleen was enlarged, the abdomen tympanitic. This condition continued till October 8th; at that time there was a fresh eruption on the back, and the fever, which had previously been present only in the afternoon, now continued throughout the day. October 9th, it vomited for the first time, and the head was hot. October 10th, from having been very restless, it became apathetic, the head was retracted, there was rigidity of the muscles of the neck, the temperature was $100\frac{1}{2}^{\circ}$; the respiration was peculiar; at first it would be shallow and infrequent, then slow and deep, and then a number of rapid respirations; their number was 26 to the minute; the pulse was 104, hard, and occasionally dicrotic. The harsh respiration, which had previously almost disappeared, now again made its appearance, especially in the right subclavian and the left axillary regions. The abdomen now began to be retracted. There could be now no doubt that the child had tuberculosis, and that its present symptoms were owing to the brain having become involved. On the 11th of October, the pulse was irregular, the respiration regular and 40 to the minute; the pupils were dilated, and the child was unconscious. October 13th, crepitant râles were heard over the whole chest. October 14th, the

temperature was normal. This evening the child had a convulsion, and the next morning it was noticed that the right arm was paralyzed. The mother stated that after this it seemed to be conscious, until it died, October 16th.

At the autopsy, in the brain there were adhesions between the dura mater and the skull externally, so as to make the removal of the calvarium difficult. There was also some adhesions between the dura mater and the arachnoid. About half a pint of sanguinolent serosity escaped. The brain was considerably softened. The convexity was pale, and somewhat flattened. At the base there existed a typical meningitis in the early stage: the pia mater was everywhere thickened, and opaque and infiltrated, especially along the course of the blood-vessels. There was the usual lesion along the fissure of Sylvius, where there was a quantity of amber-colored liquid. The tubercles of the pia mater were very small—none of them under the microscope seemed larger than the head of a small pin. There were no agglomerated tubercles, and there was no pus. At the tip of the left temporal lobe was a patch of softening about the size of a walnut, and in the anterior part of this was a cavity that had evidently been an abscess. This abscess evidently affected the band of fibres that pass from this convolution to the corpus striatum. This circumstance justifies an assertion recently made in a thesis written in Paris, that it was possible to locate a cerebral lesion in spite of a general cerebral disease.

The lungs were studded with tubercles and there was a cheesy mass in the left apex surrounded by indurated tissue and corresponding to the point where the harsh respiration, etc., were discovered on the first day. There was little tubercular deposit in the lower lobes. The bronchial glands were converted into masses of tubercular material. In the spleen were also cheesy nodules.

The microscope brought out the different nature of the tubercles in different parts: in the pia mater there was infiltration of the sheaths of the blood-vessels at points, causing bulging out of the sheaths. In the lungs the tubercles consisted of infiltration of the alveoli, they being filled up with detritus, and surrounded by thickened walls, the changes corresponding to those described as desquamative pneumonia.

The intestines were normal—corresponding with the clinical fact of there having been no diarrhœa.

There were several interesting points in connection with this case. In the first place, the difficulty of diagnosis, especially at the commencement, and in cases where it was impossible, as in dispensary cases, to obtain a reliable record of the temperature, between acute miliary tuberculosis and typhoid fever. Klein refers to seven cases, in one of which the diagnosis remained in doubt up to the time of death. Another point was as to the focus of infection: at first it seemed to be the bronchial glands but afterwards it appeared more reasonable to suppose that it was the cheesy mass in the apex of the left lung, and that the broncho-pneumonia following the measles had never completely resolved. It would seem that as soon as the poison enters the sheath of the blood-vessels in the brain, it commences its work of destruction, and produces death

before the convexity has had time to become affected.

Dr. Van Giesen thought that it was important to notice whether there was inequality of the pupils, as in those cases in which this existed the pathological process related more to the brain than to the bowel; although Meigs and Pepper quoted a case from Trousseau in which there was inequality of the pupils and yet the child had typhoid fever. Dr. Seguin said, that, in a certain proportion of cases there were the evidences of neuro-retinitis as seen by the ophthalmoscope; while its absence would not settle the matter, its presence would be conclusive. In answer to a question by Mrs. Dr. Jacobi, as to whether he agreed with Bouchut, that in tubercular meningitis there were tubercles in the choroid, Dr. Seguin answered that he did not.

Dr. Wyeth said: I have recently read a book on cerebral localization with special reference to the operation of trephining by Lucas-Championnière, and in this the author states that when the upper extremity is paralyzed the lesion is in the middle third of the ascending frontal convolution and in such cases as this, which has just been presented, if we had followed the author's advice and trephined along the Rolandic line we should have been about 2½ inches out of the way.

Dr. Seguin said that he could not let the statement of the presumed connection between the abscess in the left temporal lobe and the paralysis of the right arm go unchallenged, in view of the well-known fact that in basilar meningitis paralysis occurs without focal lesion. It has been shown that the entire apex of the temporal lobe may be destroyed in man without special symptoms. He remembered two cases, one of tumor and the other of abscess in which this was the fact. As to animals a similar lesion caused no paralysis, but in the higher monkeys it produced disorders of audition.

Mrs. Dr. Jacobi said that the corpus striatum of the right side was softened, the left also though less, but the abscess was on the left side. She had another specimen which showed a deposit around the fissure of Rolando but there was no local lesion and no paralysis.

Dr. Briddon said that two years ago he had a case in which there was a large tumor growing from the sphenoid but it produced no paralysis and no aphasia.

Dr. L. A. Stimson showed pieces of bone which he had removed in

EXCISION OF THE ELBOW JOINT.

One was from a young man of about eighteen, who had had scarlet fever at the age of eight, followed by an abscess of the knee and swelling of the elbow-joint. It did not trouble him again for nearly ten years and then he was admitted to Bellevue Hospital, where Dr. S— excised the joint. He found that the olecranon was very much enlarged and obstructed the movements of the joint. He made a good recovery and the arm was much improved. The second case was that of a negro, who had had pain in the joint for five years, with abscesses, and crepitus detected on attempting motion. This joint was also excised; the capsule was found so thickened that it had little or no

cavity; this was especially the case around the head of the radius, where there was an abscess with a commencing sequestrum. The ulna and external condyle were very much overgrown. A stiff joint was intended and the patient has now no lateral motion but can flex the forearm through an arc of 30° and can lift a weight of ten or twelve pounds. In another case in which he had operated a year and a half ago, the patient could now move the arm as if nothing was the matter.

Dr. Beverley Robinson presented specimens from two cases of miliary tuberculosis, in which the temperature curve had been carefully observed. They were typical cases of laryngeal phthisis, one of them showing an ulcer which had eaten away nearly the whole of one of the vocal cords; in the same patient there were fibrous pneumonia and cheesy nodules.

The society then went into executive session and adjourned at 10 P. M.

NEWS ITEMS AND NOTES.

Anglican Diseases.—Some of our English extremists will learn with surprise, from Dr. L. H. Petit, of the *Paris Médical*, that the English call *teetotalism* "the morbid state produced by the total absence of alcoholic liquor", and *vegetarism* "that which results from an alimentation exclusively vegetable." He cites, as an example of these morbid states, a case mentioned by Mr. Barwell, in which, osteotomy of the tarsus for club-foot having been performed in a vegetarian, prolonged suppuration followed, which complicated the operation, notwithstanding an antiseptic mode of treatment; and he does not hesitate to incriminate here "vegetarism." "It is a second time in which a case of operation on vegetarians gave rise to very slow convalescence with abundant suppuration of the wounds."

Monstrosity.—A remarkable case of monstrosity is reported in the *Wiener Medicin Presse*, 1879, No. 9. The child had been born dead. The upper part of its body was single, the lower double. It had two faces on a skull, which was about thirteen *centimetres* wide. Both individuals were not equally well developed, the one being five *centimetres* shorter than the other (thirty-five and thirty *centimetres*), and the external genital organs were absent. It had also a large bifid spine. There were four frontal and as many parietal bones, and two occipital bones. The spines were separate. Both breast-bones were united in one; at their lower end, there was an opening in the skin of the size of a palm, through which the intestines protruded. The corresponding parts of the cerebra were united; the cerebella were separate. The organs of the throat and thorax were double; the œsophagus was single; the stomach also; the intestines were double, but abnormally formed. A small intestine ran from the stomach into the pelvis of the smaller fœtus, where it developed into a cæcum furnished with a process vermiformis which opened into a duct, from which the ileum of the normally developed fœtus

sprang. This ileum ended in an anus in the larger individual.

Keeper Crushed by a Boar.—One of the most intrepid wild beast tamers in Europe, Karolyi, a Magyar of colossal stature and extraordinary physical strength, has recently fallen a victim to a dread contingency of his perilous profession. He was performing before a crowded audience in Madrid the other day one of his most sensational feats, which consisted in allowing a huge boa constrictor, over twenty feet in length, to enfold its body in its tremendous coils, when suddenly a piercing cry escaped him, which was greeted by the public with a round of applause under the supposition that its utterance constituted a part of the performance. It proved, however, to be the outcome of a strong man's death agony. The gigantic snake had tightened its coils and crushed poor Karolyi's life out of him with one terrific squeeze. As his head fell back and his eyes became fixed in a glassy stare, the plaudits died away, and were succeeded by the stillness of utter consternation. The snake and its lifeless victim swayed for a second or two of inexpressible horror and then toppled over on the boards of the stage; but the boa did not in the least relax his grip upon the corpse, which remained for more than an hour imprisoned in its hideous thralldom, nobody daring to approach the lithe monster, of whose powers such appalling proof had been given. At length it occurred to one of Karolyi's attendants to place a bowl of milk in a cage within sight of the mighty serpent, which slowly unwound itself from the dead body and glided into its den irresistibly tempted thereto by its favorite dainty. A post-mortem examination of the unfortunate athlete's remains discovered no fewer than eighty-seven fractures of his bones effected by the constriction of the serpent's coils. His death must have been almost instantaneous, as the spine was disarticulated in several places.

Tuberculosis in Infants.—From a consideration of nine cases of tuberculosis in infants from ten weeks to ten months of age, including seven fatal cases with necropsies, Dr. Alois Epstein (*Prager Vierteljahrsschrift*, Band 142), concludes that the presence of the disease in infants is in most cases due to infection with the milk of a tuberculous mother, and not to hereditary predisposition, as is usually supposed. Two of the children were the offspring of healthy mothers, but one was suckled by a phthisical wetnurse. Seven were children of phthisical mothers. In one of the cases, there were intestinal ulcers and cheesy infiltration of the mesenteric glands. The author remarks that the tuberculosis of infants and young children differs from that of adults in the great frequency with which the lymphatic glands, and especially the glands of the small intestine, are affected, and also in the comparative rarity of pulmonary disease in children. These facts appear to indicate that the starting-points of tuberculosis in children and in adults are different; and that, while in adults and older children it is breathed in, it is sucked in by infants and young children.—*Allgemeine Medicin. Central-Zeitung*, July 26th.

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NEW YORK, SATURDAY, NOVEMBER 15TH, 1879.

EDITORIAL.

NEGLECTED PROFESSIONAL DUTY.

A legitimate outgrowth of the persistence, by some druggists, in the giving of gratuitous medical advice, that by so doing they may more readily dispose of their drugs, is making itself quite apparent in the agitation of the question whether it would not be advisable for physicians to dispense, as well as prescribe remedies. Such a practice would at least be a safe resort, and its justification would be an easy task under existing circumstances. We venture that the popular approval would be exceedingly gratifying, for it has frequently been argued in lay journals that the transfer of so important a part of a physician's duty, as the selection and preparation of drugs, to the hands of another, was unwise, and the continuance is censurable. This transfer was made; for in the early days of medicine the physician sacredly recognized his full responsibility, and allowed no assistance when the chances of others'

lives were entrusted to his keeping. He watched, diagnosticated, prescribed, compounded and administered; each act was but a part of his duty, and none were to be neglected. The watching with his own eyes, the studying with his own intelligence, the selection of remedies according to his own thoughts, the weighing and mixing of drugs by his own hand and the administering at the precise moment and in the preferred mode combined to form his idea of his mission and duty, and of these he must not, would not, omit one. Convenience, comfort and ambitious desires have changed everything, and even this sacred responsibility has been divided and subdivided, in practice, to suit them. We have physicians and druggists, nurses and attendants now; the latter engaged to perform some of the duties of the former, therefore seeming to bear a portion of the responsibility. These substitutes are illy tolerated by suffering humanity, who properly esteem their own endangered existence more highly than a physician's convenience, comfort or ambition.

What was formerly true of the physician's duty, when recognized by him and sacredly performed, is still true, though parts of it seem to have been almost ignored in practice. Time has not changed the laws of nature, and that divine command which compelled and should still compel the physician to be constant and instant from the beginning to the end of each case of suffering, is as binding as it was, though so nearly forgotten. The entire responsibility of the careful, acceptable and direct treatment of the sick is imposed by the patient and the friends upon the physician; the world so holds, but needs immediate occasion before fully and presently proclaiming its belief. The physician is the one, who, alone, is acknowledged to be able to discover the cause and direct the cure of the suffering; the sufferer drops powerless at his feet, imploring his whole effort, relying upon his strength. He is almost worshipped, therefore his position must involve a relative responsibility. If error or negligence creep into his labors, because of himself or his tolerated assistance, to the limit of human powers, he is accountable. The big, but not more honorable practices of to-day cannot shield the guilty and the heedless from the penalty, though they may excuse him according to the letter of the law. Let it be remembered that were there no physicians there would be no druggists; but were there no druggists, then there would be better physicians. Since they would be fully competent, because responsible alone.

We state briefly our opinion of the subordinate position of the druggist, as a foundation for our espousal of the cause of physicians who not only prescribe but dispense remedies.

Whoever among physicians feels the weighty responsibility of his charge, and fears, because he knows so much against them, that druggists may substitute or dispense inferior drugs, has the right to be true to himself, and honorable with his patients; he certainly has the right to furnish pure drugs if he has the right to prescribe them. So much for the question of right and how much more is it a duty.

As to expediency, there is but little to be said. It seems trifling to say that physicians will err in dispensing, for both druggists and physicians are subject to the same, only human weaknesses, and if the feeling of greatest responsibility which must control the physician does not make him more reliable, then we are at a loss to know what motive will work to perfection. We cannot conclude without repeating that there are druggists who are proficient and strictly honorable in their positions.

CORRESPONDENCE.

DE MORTUIS NIL NISI BONUM.

IN THE HOSPITAL GAZETTE for April 5th we published an editorial on Plagiarism in which we called attention to an article which had been published in *The Medical and Surgical Brief* about a year ago with the name of Dr. L. C. Raymond of San Francisco attached, and which was a copy of an article published in January 1878, by a Dr. Holcombe of New Orleans.

The subjoined letter we received in May last, since which time we have used every effort to get an explanation from the former publishers of the now defunct *Medical and Surgical Brief*, but to no effect.

We therefore cheerfully publish, Dr. Burgess' letter, in justice to Dr. Raymond.

SAN FRANCISCO, May 10, 1879.

Editor HOSPITAL GAZETTE:

Dr. Lee Chester Raymond died in this city early in the Spring of 1876. He therefore could not have plagiarized Dr. Holcombe's paper on "Unexpected Cure by Angus Castus" published in January, 1878. We would not have done it had he been living. He was my brother-in-law, and was associated with me in practice at one time, hence I know whereof I speak. But the question very naturally arises: Who are the parties that are thus using dead men's names, and what is their purpose?

Whatever the purpose, the act is a shameful outrage. Yours truly,

O. O. BURGESS.

DISLOCATION OF THE FEMUR ON THE DORSUM ILII IN A CHILD FOUR YEARS OLD. REDUCED BY DRs. THOMSON AND DEE, ONTARIO, (ONONDAGA), CANADA.

Dr. Bermingham,

I send you the enclosed letter, without authority,

from Dr. Thomson, but the accident reported is so rare that I feel quite sure he will not object to its being published in your journal, if you think it proper to do so. Yours truly, F. H. H.

ONONDAGO, Oct. 20th, 1879.

Professor F. H. Hamilton, A.M., M.D.

DEAR SIR—As the following case may possess some little interest, owing to the early age at which the dislocation occurred, I have taken the liberty of reporting it to you.

On the 10th of June, 1879, Kate Isaac, an Indian child, aged four years, living with her parents on the Tuscarora Reserve, Ontario, Canada, fell from a wagon and injured her hip.

Dr. Dee, the medical officer to the Six Nation Indians, and an old pupil of yours, was called to visit the child on the evening of the 11th. He at once diagnosed it as a case of dislocation of the left femur on the dorsum ilii. Preferring to have assistance before attempting reduction, he called on me very early on the morning of the 12th, when I accompanied Dr. Dee to the home of the little patient. It was a well marked case of dislocation on the dorsum ilii. Dr. Dee having administered chloroform, I reduced the dislocation in less than three minutes by Bigelow's method. The bone resuming its place with an audible click which was heard by all in the room. The child was soon able to walk about, and is now as well as if the accident had never happened.

I remain, very truly yours,

ALEX. THOMSON.

LOSS OF PERSONAL IDENTITY.

ST. CLARISVILLE, O., Oct. 20th, 1879.

Dr. E. J. Bermingham,

Editor HOSPITAL GAZETTE, New York.

SIR—I herewith send you a note of an interesting case under my care in County Infirmary. If of sufficient interest please give it a place in the GAZETTE.

Respectfully,

A. H. HEWETER.

I have had under my care as physician for our County Infirmary a very interesting case. There is no discoverable bodily disease, but a very peculiar mental state. The patient has lost all knowledge of his personal identity: does not know who he is, where he came from, or whither he was going. He became an inmate of our Infirmary about nine months since. The following is his history since taken in charge by our county officials. All previous to that is a blank to himself and entirely unknown to us:

About the time referred to, nine months since, he found himself standing upon the depot in Bellaire city with a little money in his pocket, and a small travelling bag in his hand. This bag contained a change of linen, pair of scissors, and some blank paper like that used by editors. His clothes were quite genteel and the underwear in his valise was neat and clean. His entire appearance was that of a well-cared for gentleman ready for business.

There was no name on any property about him indicating who he was: entirely nameless, except on

some part of his effects was the name Ralph. This is what he is called in the Infirmary.

After thinking and thinking while at the depot he at last went to the nearest hotel and gave the landlord a candid statement of his very strange condition. He asked for a bed, said he had a little money, that he would be no trouble, and that he felt sure this strange mental sickness would soon pass off. The landlord became interested in his case.

The same day a gentleman came to Bellaire to lecture on temperance. Stopping at the same hotel he soon made the acquaintance of Ralph and invited him to attend the lecture. While attentively listening some impulse came over him which he could not resist, and he found himself out in the street smashing the saloon windows with a big club. The roughs ran out, beat and abused him badly, breaking the neck of the humerus and beating one side all black and blue. This brought him into the hands of the police. But the lecturer, the doctor, the landlord and mayor all became interested in finding out who he was. They made every effort, but utterly failed.

He certainly is a man of more than the average ability; has had quite an extensive knowledge of business, and is very expert with the pen. Some think that he must have been connected with the press. Others, a clerk in some calling in which the use of the pen and figuring was the daily habit. In this way alone can they explain his great expertness.

His knowledge is entirely correct upon all matters disconnected with the question of identity. He has the use of his mental powers in all other directions.

I made him, after having the best evidence of his fitness, my assistant. He has put up all the medicine, &c. I procured him Parish's Pharmacy, and in a remarkably short time he was able to fill any prescription I required, and in many other ways to assist me.

So great is his general knowledge, and so correct all his recollections of general events, and all special duties imposed upon him, that many were skeptical and believed him to be feigning. But, after nine months close observation, we are all forced to believe that he is what he says he is—a man with no knowledge of his personal identity.

He is about fifty (50) years of age; rather spare; has dark hair, well sprinkled with gray, and is quite a gentleman in appearance. He has made himself so useful, agreeable, and so anxious to return all he can for the benefits he has received, that he was presented with a new suit of clothes and directed to eat at the superintendent's table.

I report the case both on account of its psychological interest, and that possibly it may lead to his identity.

He has been published in our newspapers pretty thoroughly, but these have a much more limited circulation than a medical journal like yours.

SELECTIONS FROM JOURNALS.

SUPRAORBITAL NEURALGIA CURED BY NERVE-STRETCHING.

Dr. Kocher relates, in the *Correspondenzblatt für*

Schweizer Aerzte, November 11, 1879, the case of a man aged 32, who had for seventeen years suffered from neuralgia of the right supraorbital nerve. The attacks, at first rare, afterwards became more frequent, until at last there were only brief intervals of freedom from pain. All the ordinary therapeutic measures had been tried for years without success. Dr. Kocher laid bare the nerve and three of its branches by an incision along the upper border of the orbit, and stretched it forcibly by means of an aneurism-needle passed under it. The healing of the wound was attended with abundant suppuration. From the moment of the operation, the patient was free from pain, and the neighborhood of the supraorbital nerve was anæsthetic. The patient was last seen three months after the operation; he had had no return of the pain; sensation was diminished over a space ten *centimètres* in extent, but was otherwise perfectly restored. After neurectomy, paroxysms of pain are usually observed during the first few days after the operation. As these were absent in the present case, Dr. Kocher concludes that the lesion of the nerve is less when the nerve is stretched than when it is divided. The value of nerve-stretching as a substitute for excision will be greater in neuralgia of the second and third divisions of the fifth nerve, as here a much smaller wound will suffice. —*Brit. Med. Jour.*

SPONTANEOUS ANTERIOR SUBLUXATION OF THE HAND.

Dr. Madelung publishes, in von Langenbeck's *Archiv* (vol. xxiii), a report of twelve cases of this affection which have come under his notice. In one of the cases, he was able to make a thorough anatomical examination. The upper border of the articular surface of the radius had degenerated into a tuberosity, which prevented the carpus from assuming its normal position; the epiphysis of the radius was considerably inclined towards the ulnar surface. There were no signs of inflammation. The author regards this deformity as dependent on an arrest in the growth of the wrist-joint, and as being analogous to talipes valgus and genu valgum, which are caused by excess of weight pressing on the lower extremities. This spontaneous subluxation is most frequently met with in the age between thirteen and twenty-three, and in females belonging to the working-classes, especially laundresses. The movements of the joints are limited to a certain extent by the arrangement of the bones, the ligaments, and the muscles. The latter are of special importance for the movements of the wrist-joint. The manual labor of daily life is almost entirely executed by the pronator muscles. Excess of flexion on the palmar surface is prevented by the tendons which run across the epiphysis of the radius, and, in arduous manual labor, exercise a constant pressure on the bone. When this muscular-apparatus is unable from exhaustion to discharge its functions any longer, the bones and ligaments take its place; and thus gradually the excessive pressure on one part of the articular surface of the radial epiphysis arrests its further growth, and favors the excessive development of those parts which are not subject to pressure. This deformity of the articular surfaces is always accom-

panied by pain in the affected joint, which has often been erroneously ascribed to neurosis. If the patient continue to work as before, subluxation of the joint ensues, the pain ceases, and the wrist-joint becomes deformed and much limited in its movements. When the affection is fully developed, it becomes incurable; but it may be arrested by carefully avoiding all labors which entail a forced dorsal flexion, and by wearing a broad leather strap which fits tightly to the joint, can be made tight or loose according to the wearer's will, and prevents the articulation from executing excessive movements.—*Brit. Med. Jour.*

FOREIGN BODY IN THE BASE OF THE ORBIT.

At a meeting of the Medical Society of Greifswald (*Deutsche Medicin. Wochenschrift*, August 16th), Dr. Schirmer related a case in which a foreign body had remained five months in the orbit without producing remarkable disturbance. On February 20th, a soldier aged 25 came to the eye-clinic on account of entropion of the left lower eyelid; the middle part was specially affected, being turned inwards at an angle. The cause of this was apparent in the form of a cicatricial band extending from the edge of the lid to the lower fold; it implicated the conjunctiva and a portion of the tarsus, but left the cutis free. Another vertical cicatrix passed through the thickness of the whole upper eyelid, not quite reaching the edge. There was also a vertical cicatrix nearly an inch long on the forehead, reaching as far as the left eyebrow. In the previous October, during a fight, it was said, the patient had been wounded in the forehead and upper eyelid by a knife; but the eye had not been injured. These wounds were united by sutures; the injury of the lower lid was not noticed. The entropion had set in soon afterwards. On examination, it was found that the conjunctival cicatrix was firmly adherent to the base of the orbit; and it was hence supposed that the instrument which produced the injury had penetrated the antrum of Highmore, and had pushed a portion of the lower fold of conjunctiva into the opening of the bone; and that, perhaps, also a broken portion of the knife remained there. No foreign body, however, could be felt with certainty in the orbit. An incision about four-fifths of an inch long was made through the soft parts along the lower border of the orbit; and the floor of the orbit was explored with a blunt instrument as far as the cicatrix. At this part, there was found a broken piece of knife, with its back turned towards the border of the orbit, and its edge towards the eyeball. Some force was required in removing it. It was a piece of a knife, about an inch and one-third long and three-fifths of an inch wide. After its removal, the lower eyelid regained its normal position, and the patient was discharged completely cured.—*Brit. Med. Jour.*

EMPHYSEMA OF THE UPPER EYE-LID PRODUCED BY BLOWING THE NOSE AFTER AN INJURY.

Dr. A. D. Williams relates the following case. A young woman called to ask him about her eye,

which she had injured a few minutes before by a severe fall. By accident, she tumbled down four or five steps out of a front door upon the pavement, striking heavily upon the bricks with the supraorbital bone of the left side of the head and body. The fall caused considerable contusion of the flesh and some abrasion of the skin over the left eye, but no cut. Soon after she stood up, she had occasion to blow her nose quite hard, and was surprised to find that the upper eye-lid swelled up to such an extent that she could not open the eye even with her fingers. The suddenness of the swelling and her inability to open the eye in any way naturally frightened her very much. Upon examination, Dr. Williams could find no injury other than the contusion of the flesh and the abrasion of the skin over the eye. The peculiar cracking feeling communicated to the fingers by palpation conclusively proved that the great swelling of the lid was caused by the presence of air in its areolar tissue. By pressing upon the lid a little, the air could be forced out of the lid into the deeper tissue of the orbit, which allowed the lid at once to partly open. The pressure caused the cracking noise to be both heard and felt by the patient. To account for the emphysema of the lid, it is necessary to suppose that the fall caused sufficient fracture of the bone at some point to make an opening through it. The locality of the fractured point was most likely in the outer or anterior wall of the frontal sinus. When the patient blew her nose, the pressure was sufficient to force the air through the opening in the areolar tissue of the lid.—*Brit. Med. Jour.*

TRAUMATIC TETANUS: DIFFERENT METHODS OF TREATMENT.

Dr. Mollière relates the following case in the *Gazette des Hôpitaux*. The patient, aged 25, had been accidentally shot in the right foot. The fourth and fifth toes were so badly injured that they were amputated at once; the first phalanx of the third was fractured and the articulation opened, but it was thought that it might be preserved. The patient was treated antiseptically, and seemed to progress well during a fortnight, when suddenly he began to complain of a feeling of lassitude, the wound became very painful, and he experienced some difficulty in opening his jaws and turning his head. The toe was dressed with laudanum, and the patient took half a drachm of bromide of potassium and a drachm and a half of chloral daily; he had also two hypodermic injections of morphia. Notwithstanding this treatment, the patient became worse, the pain in the foot increased, and all the symptoms of acute tetanus showed themselves; he had general convulsions, could not move his head or open his mouth, perspired abundantly, had very high temperature, etc. The wound becoming exceedingly painful, the injured toe was amputated. From that day the local pain ceased, and the other symptoms gradually vanished. The patient remained sleepless for a rather long time, notwithstanding the use of hypnotics, but could open his mouth more freely, and could swallow. Smaller doses of chloral and bromide of potassium were given, and a month after the operation the patient

was well enough to leave the hospital. On dissecting the toe which had been removed, it was found that a small sharp fragment of bone was sticking in the internal lateral nerve, and had in this way caused the tetanic convulsions. This case is remarkable on account of the different methods of treating tetanus having been combined in the treatment. Without the amputation, the drugs given would have had no effect; but, on the other hand, if the powerful doses of hypnotics had not been administered, the surgical treatment would, in the author's opinion, have proved useless.—*Brit. Med. Jour.*

TOTAL UNILATERAL RUPTURE OF THE KIDNEY.

Dr. Anders, in No. 50 of the *St. Petersburger Medicinische Wochenschrift*, gives the following account of an interesting case. The patient, aged 15, a well built and well nourished individual, fell from the second floor of a house to the ground, but was not rendered insensible. He said that he had first struck the ground with his feet and then with the right hip. No symptoms of external injury could, however, be seen, except a slightly purplish spot over the right trochanter. No fracture of any kind could be traced, neither was there any symptom of concussion of the brain or spinal cord. He could not walk very well, but was able to move his extremities freely when lying in bed. The pulse was small, 60. Sensibility was not decreased. He freely passed bloody urine. The patient complained of severe pain in the abdomen, especially in the left renal region, but nothing abnormal could be detected in that part, either on inspection or palpation. The epidermis, and those parts of the mucous membranes which were visible to the eye, were exceedingly pale. The urine, on being examined under the microscope, was found to contain a large number of red blood-corpuscles. Towards night, the patient grew weaker, his abdomen was inflated, he frequently passed bloody urine, and complained of an increase of pain in the left lumbar region and the abdomen, especially if touched there. The symptoms of internal hemorrhage increased; he was a little delirious during the night. On the next morning, the mucous membranes seemed to be perfectly bloodless, while the skin was yellow. During the night, the urine was very little bloody, and on the morning quite clear. The patient died at 11 A. M. The treatment consisted in applying ice-bags to the abdomen and the lumbar region, and in giving several doses of morphia during the stage of prostration. At the necropsy, the thoracic viscera and the brain were found perfectly normal. On opening the abdominal cavity, several superficial subperitoneal extravasations, varying in size from a three-penny-piece to a penny-piece, were seen, both on the visceral as well as the parietal peritoneum, especially in the portions which corresponded to the cæcum, descending colon, sigmoid flexure, and parts of the ileum. A dark blue tumor of the size of a child's head, extending from the iliac fossa to above the tenth rib, and covering the three superior lumbar vertebra, was found in the abdominal cavity. It

consisted of coagulated blood, in which the kidney, which had been torn into two distinct halves, was found imbedded. The rupture was transverse, going from the anterior superior part of the organ to the posterior inferior, and extending over the capsule and the pulp. The pieces were about two inches distant from each other, and entirely separated from their adhesions. The ureter was torn off, and was attached, to the length of two inches, to the lower fragment; the renal vein and artery were in the same condition. The right kidney was perfectly sound. The peritoneum was not ruptured. No fluid was contained in the abdominal cavity, and no blood in the bladder. Dr. Anders remarks that this case belongs to a class of rupture of the kidneys which very seldom comes under observation. 1. All the other organs remaining unaffected, the left kidney only was the subject of an indirect injury. 2. Death was caused by acute anæmia, as shown by the large clot of blood which was found in the left renal region and the hæmaturia. 3. The vein, artery, and ureter, were all three divided. 4. The reason why no blood was passed with the urine in the morning is, probably, that the blood being still liquid for the first hours after the accident, flowed down the divided ureter into the bladder; but later on coagulating stopped it, so that the urine which was secreted by the right healthy kidney remained clear, and was passed as such.

BEE-STINGS SIMULATING HERNIA.

M. Lepage read, before the Medical Society of Indre-et-Loire, the following observation of a singular case of simulation. A man presented himself, declaring that he was suffering from an inguinal hernia of several years' standing, but he could not give any particulars, and seemed rather deficient in intellect. The part in question being examined, no prominence could be seen; neither was one caused by coughing. The left side of the scrotum was larger and redder than the right, and, especially in the lower portion, had the appearance of an oedematous tumor, which extended far backwards, and was more suggestive of a large abscess than of a hernia. The testicles were normal. There was nothing unusual in the external appearance of the scrotum, with the exception of the inflammatory state, which could only be ascribed to the formation of an abscess in the tunica vaginalis, the origin of which, however, was not clear. In examining it more carefully, M. Lepage discovered, on the surface of the swelling, two slightly prominent black spots, which adhered closely to the skin. After a little pulling, they were removed, and proved to be stings of bees. The origin of the inflammation was now clear; but, notwithstanding this discovery, the patient persisted in saying that he had a hernia, that he always had had one, and that he knew nothing about the stings. It seems that this kind of simulation, which used to be commonly practised formerly, does not occur often now. It is easy to prove it if the stings happen to have been left in the wounds, but after they have been removed it is very difficult, as the traces left by the sting are almost imperceptible.—*Brit. Med. Jour.*

CASE OF FRACTURE OF THE THIRD CERVICAL VERTEBRA.

BY
H. F. EBERMAN, M.D., OF LANCASTER, PA.

A very singular and interesting case of fracture of the third cervical vertebra occurred in Lancaster, Pa., a few weeks ago.

The patient, William Barracks, aged about seventy years, was making his home in a stable adjoining a hotel, and was in the habit of sleeping in the hay-loft. One morning on arising and while descending the steps, he slipped and fell, striking his occiput violently on the ground, and thus forcibly throwing his head forward on his chest, and rendering him insensible for a considerable time.

After recovering from the shock, he arose and, placing both hands to his neck, walked to the bar-room of the hotel (which is half a square from the place of accident), where he remarked that he thought his neck was hurt, and at the same time called for a glass of whiskey, which he immediately drank. He then returned to the stable, laid down on the hay, and expired in about half an hour.

On the following day a *post-mortem* examination was made by Dr. H. E. Muhlenberg and myself, with the following result:

The third cervical vertebra was found to be fractured transversely through the body, the arch on the right side was broken entirely through, the articulating surfaces on both sides were fractured through the middle, the transverse process on the right side of the atlas was broken off, and the inter-spinous and posterior vertebral ligaments were ruptured, but the spinal cord remained intact.

The specimen is in the possession of Dr. Muhlenberg.—*Am. Jour. Med. Sci.*

SPONTANEOUS PRODUCTION OF URTICARIA.

Dr. Dujardin-Beaumetz (*Gaz. Hebdomadaire*, July 25) exhibited at the Société Médicale des Hôpitaux an hysterical woman who presented a peculiarity of which he knew of no other example. When a word is traced on any part of the body, in a few minutes an elevation of the skin is produced absolutely resembling urticaria, the inscription remaining thus marked for four or five hours, the temperature of the skin being also raised at these points. Neither urticaria nor any other eruption exists on any other part of the body. Prof. Vulpian has also met with a case, in a non-hysterical youth, in which elevations of the skin, like those observed on this patient, could be induced in the same manner; and in another patient Dr. Dujardin-Beaumetz was able to produce erythema at any point to which he applied a magnet. Dr. Besnier observed that in persons liable to urticaria this eruption can often be induced whenever the skin is scratched.—*Med. Times and Gaz.*, Aug. 23, 1879.

ON THE PHYSIOLOGICAL FACTS IN REGARD TO ANÆSTHESIA.

M. Simonin believes (*Le Progrès Medical*, May 3, 1879) that of the various symptoms of etherization three appears to predominate. By means of these

symptoms a diagnosis of the various degrees of etherization may be made, and by them the surgeon may be guided in the administration of an anæsthetic, and may obtain the full effect without risk of accident. The symptoms alluded to are, firstly, the manifestation of peripheral insensibility, markedly in the temples and cornea; secondly, the condition of the muscles of the lower jaw; thirdly, the state of the pupils, more especially in regard to their contraction, and to the relaxation of the iris. The conclusion of the author in regard to these points is, that when the peripheral insensibility sets in, the patient is in a fit state for the surgeon. The patient is in no danger so long as the jaws remain closed. Lastly, the contraction of the iris is a nearly constant symptom of the surgical period of etherization, and the maintenance of the contraction shows that the anæsthetized patient is not in any danger. But dilation of the pupil should cause uneasiness, or at any rate should provoke the greatest attention on the part of the surgeon to the state of his patient.—*London Med. Record*, Aug. 15, 1879.

A CASE OF EMPYEMA IN WHICH PORTIONS OF THE RIBS WERE EXCISED.

Dr. F. Taylor read for himself and Mr. H. G. Howse a paper on this case, before the Clinical Society of London. The patient, a child aged 6, was admitted into the Evelina Hospital in January 1877, with a history of acute pleurisy eleven weeks previously. The left chest was shrunken, and dull on percussion posteriorly, with deficient breath-sounds, and some crepitation at the base in front. The temperature at first was nearly normal; but, after a time, it fluctuated considerably, often rising in the evening to 103° Fahr. As this continued, and the physical signs were confined to the base of the left chest, this was explored on April 16th, and pus was found. The chest was then incised, and about ten ounces of pus were discharged. Tubes were inserted, and the chest washed out daily. On May 20th, a counter-opening had to be made; but, by the end of June, very little real progress had been made, as the sinuses rapidly closed, and thus the pus secreted was retained. On July 2nd, Mr. Howse made a T-shaped incision through the skin round the existing aperture, and, after separating the periosteum, removed with the bone-forceps portions of the seventh, eighth, and ninth ribs. Each portion was about an inch and a half long. The thickened pleura was then cut through from the sinus, and two draining-tubes were inserted. The immediate improvement was decided; but the wound rapidly filled up, and in a short time the sinus was reduced to a channel no larger than it was previously to the operation. From this time, nothing further was done by operation. The pus, continued to be secreted, and its retention was quickly followed by hectic symptoms. Albuminuria was discovered in September, 1877, two months after the operation; anasarca developed later, and there was frequent diarrhoea; so that she sank from the internal complications in October, 1878. At the *post mortem* examination, the empyema was found to occupy chiefly the posterior part of the chest, reaching from base to apex. The lung was

airless, except at the apex. There was no tubercle. The sixth, seventh, and eighth ribs were united by bony bridges. The liver, kidneys, and intestines were lardaceous, and there was recent acute peritonitis. The operation performed in this case permitted more falling in of the chest than would have otherwise taken place, but did not facilitate the drainage so much as was desired. This was due to the rapid development of granulations and bone which took place after the operation, the opening being quickly reduced to a narrow sinus. In another case, it would probably be advisable to remove the periosteal tissue much more freely, even if it necessitated also the removal of the thickened pleura. The large opening thus obtained would also allow more complete exploration of the smaller cavities, apparently distinct from the main cavity, such as were found in this case at the time of the operation. Dr. Powell said he had now a patient under his care where something of the kind must be done. Would not gouging away a portion of the rib, so allowing a kind of bed for the canula, be equally satisfactory? Dr. F. Taylor said their object was to prevent closure of the opening, and, if possible, to aid in the falling in of the ribs. Gouging, he thought, might fail, as this plan had done. Hence they did not repeat the operation, on account of the bad constitutional state. Mr. Howse thought gouging had little chance in such cases. The operation itself was easy enough.—*Brit. Med. Jour.*

HOW TO STOP A COLD.

Horace Dobell, in his little work on "Coughs, Colds, and Consumption," gives the following plan for stopping a cold. If employed sufficiently early it is said to be almost infallible: 1. Give five grains of sesquicarb. of ammonia and five minims of liquor morphine in an ounce of almond emulsion every three hours. 2. At night give 3 iss of liq. ammon. acetatis in a tumbler of cold water, after the patient has got into bed and been covered with several extra blankets. Cold water should be drunk freely during the night should the patient be thirsty. 3. In the morning the extra blankets should be removed, so as to allow the skin to cool down before getting up. 4. Let him get up as usual and take his usual diet, but continue the ammonia and morphia mixture every four hours. 5. At bed time the second night give a compound colocynth pill. No more than twelve doses of the mixture from the first to the last need be taken as a rule; but should the catarrh seem disposed to come back after leaving off the medicine for a day, another six doses may be taken and another pill. During the treatment the patient should live a little better than usual, and on leaving it off should take an extra glass of wine for a day or two.—*London Medical Record*, Aug. 15, 1879.

NEWS ITEMS AND NOTES.

A Paris correspondent says a terrible sight was witnessed on the 13th by passers-by in front of the Hôtel Dieu. One of the patients of the hospital went mad, and, leaping out of a window overlooking

the street, perched on the cornice. He addressed the crowd below in incoherent language, and threatened to throw himself down when any one approached the window. Mattresses and rugs were spread on the pavement, and the firemen were immediately sent for. One of the latter let himself down by a rope affixed to the roof, and, securing the madman under the arms, managed to thrust him into the open window, where he was taken charge of by the attendants. The plucky conduct of the fireman was loudly cheered by the crowd below.

Mortality from Intemperance.—Speaking before the Social Science Congress at Manchester Dr. Norman Kerr said that 120,000 persons died every year in Great Britain and Ireland from intemperance—40,500 dying from their own excess and 79,500 from the indirect consequence of the excess of others. Dr. Kerr reviewed the fortieth report of the Registrar General with reference to deaths from alcoholism, and suggested that the Social Science Association should ask confidential returns from 500 medical men in different parts of the country with a view of arriving at approximation to the truth. It was significant that gout was more fatal now than it was ten years ago, and that Italy, a most temperate nation, had only 240 per 1,000,000 of violent deaths, while England, an intemperate nation, had no less than 757 per 1,000,000.

Carbolic Acid Poisoning.—A couple of weeks since a young boy of six years was poisoned in Brooklyn, through a terrible mistake on the part of his mother. It appears that the child had been suffering from diphtheria and was under the care of a doctor who prescribed frequently for the patient at the latter's residence, No. 31 Chauncey street. On Wednesday night Mrs. Young, the mother of the child, went to the closet in which the medicine prescribed for him was usually kept. By mistake she picked up a bottle which contained carbolic acid instead of the medicine of which he had been partaking. She poured a small quantity of the fatal liquid into a glass and the child partook of it. Almost immediately the poison threw the little patient into great agony, in which he continued for one hour, at the expiration of which time he died. A physician was promptly summoned, but his services were unavailing. The mother's grief upon the discovery of the terrible mistake she had made was heartrending.

The Physiological Effects of Capsicum.—Dr. Hgyes (*Archiv für exper. Pathol.*, Band ix), has made several experiments with capsicum annum and its alkaloid capsicol, on cold and warm blooded animals. He found that both drugs stimulated especially the sensory nerves, increased the secretion of the gastric juice and the saliva, and quickened peristaltic action. In man, besides the above mentioned symptoms, others were experienced, such as itching, feeling of intense heat in the mucous membranes and a more or less considerable amount of reflex hyperæmia. The author does not consider the plant poisonous; he thinks, on the contrary, that it is a pleasant condiment, and a stimulating drug in case of chronic weakness of digestion.

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LECTURES.

CLINICAL LECTURE,

Delivered at Charity Hospital, October 5th,

BY

JOSEPH W. HOWE, M.D.,

Professor of Clinical Surgery in Bellevue Hospital Medical College.

Reported for THE HOSPITAL GAZETTE and Revised by the Lecturer.

AMPUTATION OF THE LEG FOR SYPHILITIC NECROSIS UNDER LISTER. CALLENDER'S, AND MARKEE'S MODIFICATIONS OF LISTER.—RELATIVE VALUE OF EACH.—DESCRIPTION OF DRESSING.—EPITHELIOMA.—PATHOLOGY.—DIFFERENTIAL DIAGNOSIS BETWEEN EPITHELIOMA, LUPUS, RODENT ULCER, AND SYPHILITIC ULCER.

GENTLEMEN—The first patient I shall call your attention to to-day is a woman, 50 years old, who has been an inmate of the hospital for three years. On her admission she was found to have extensive necrosis of the middle third of the tibia, due to syphilis. After a short period of constitutional treatment the dead bone was removed by one of the visiting surgeons. The wound granulated nicely, and it was hoped that there would be no recurrence of the disease. It did return, however, and more of the bone died. She submitted to a second operation, and to a third, and a few days after the last operation the bone broke at the upper part of the middle third, and several large pieces of bone were discharged through the opening during the succeeding five weeks. At the present time there is at least three inches of tibia destroyed and removed. For a short distance below the joint there is diseased bone. The general health of the patient is excellent, and the large ulcerated space which existed six months ago has been covered by a layer of cicatricial tissue. The limb, however, is useless; we have tried supports of various kinds without effect. The woman is tired of the hospital and of her useless leg. I might remove the remainder of the bone, but the leg would still be useless, and whenever the tibia is removed, the weight of the body is thrown on the slender fibula, and a dislocation of the upper end takes place. The only operation which will be of any service to the patient is amputation, and she has been anxious to have it done for over a year. I would have done it before had her general health warranted it. I propose to take it off to-day at the junction of the middle with the upper third, and it will be done "under Lister."

Lister's antiseptic treatment has marked a new era in surgery. Lister's treatment has reduced the dangers of capital operations to a minimum. It enables us to save more lives and limbs than any other method of treatment in existence, and it has cleared our surgical hospitals of pyemia and other

kindred disorders which a few years ago followed persistently in the track of the surgeon. It is true that the various details of this antiseptic treatment are troublesome, and some of them may appear to your eyes as unnecessary, but it is nevertheless important, in view of the wonderful results obtained by following them out carefully and faithfully, to omit nothing. Follow every direction, and let "well enough alone."

Lister started with the theory that the atmosphere was loaded with minute organisms (bacteria), which by gaining entrance to a wound excited inflammation, retarded union, poisoned the blood, and set up pyemia, erysipelas, hospital gangrene, and other kindred disorders which formerly made the mortuary record in our surgical hospitals look so formidable. And he argued that by destroying the bacteria in the neighborhood of the operation and the patient, and by closing the wound with antiseptic material, so as to prevent their entrance, that wounds would heal quickly with little or no supuration, and that all the troublesome and fatal complications previously mentioned would scarcely ever appear. The unprecedented success which Lister achieved by working on this theory is a sufficient proof to my mind of its correctness, and every surgeon who has used his antiseptic treatment, or modifications of it, agrees that no surgical operation should ever be performed without the antiseptic measures preceding, accompanying and following it out to the complete recovery of the patient.

Now, let us examine carefully the details of Lister's treatment as I apply them in this patient's case, going through the different stages of the operation. First, we have prepared here two solutions of carbolic acid. The strongest should contain one part of the acid to twenty of water. The second, one part of the acid to forty of water. A basin containing the stronger solution should be employed to hold the instruments necessary during the operation. Another basin containing the same solution should be used for the sponges. Then I take Weir's steam atomizer (one worked by hand will answer if no other can be had) and fill the glass in which the tube of the atomizer rests, with the $\frac{1}{40}$ solution. With this solution less numbness of the fingers is produced than with the $\frac{1}{20}$ solution, which is sometimes used for the spray. Now, having washed my hands with soap and water, and in the $\frac{1}{20}$ solution as likewise the limb I am about to amputate, the spray is turned on near the limb by the assistant. In operations on the upper extremity, you must be careful of the steam atomizer. Don't let it approach the ether cone. If it gets too near, the ether vapor will take fire and the patient's face may be severely burned. Everything being now in readiness, I take the amputating knife from the basin of carbolicized water and proceed to make a circular skin flap. You will notice that as I cut I use the knife like a saw, that is the way a knife should be used. The cut should not be made, indeed it cannot be made properly by forcing it through in one direction.

Next I dissect up the skin flap, keeping the edge of my knife towards the muscles beneath, taking up as much as possible of the subcutaneous cellular tissue. If I kept my knife turned towards the flap of integu-

ment as is usually done in the dissecting room, I would destroy the capillary blood vessels which supply the skin with blood and thus cause sloughing of the flap, and perhaps render a secondary amputation necessary. I now make an incision in the lower portion of this flap two inches in length; this facilitates the dissection, and allows free drainage, when the parts are brought in apposition. You see the carbolized spray moistens every part of the incision. It does not inconvenience me in the least. This skin flap I have turned back at least three inches. I take the amputating knife again and make a circular cut through the muscles down to the bone at the point where the flap is turned over, then I pass between the tibia and fibula, cutting at right angles to these bones through the muscles and fascia between them. A three tailed linen retractor previously soaked in the $\frac{1}{10}$ solution is now placed between and around the bones and the divided muscles are drawn forcibly up and kept clear of the joint I wish to saw through. In using the saw it is necessary to place the heel of it firmly on the tibia and draw it backwards steadily, in order to fix the blade in the bone without any side to side movements, making one clean cut and no more. I saw straight across both bones until I get nearly through the fibula; then to prevent it from splintering, I depress the handle of the saw and complete the section of the fibula before I get through the tibia. The next step in the operation is to ligate the anterior and posterior tibials and two or three smaller branches of little importance. For this purpose I will use carbolized cat-gut ligatures. These are prepared by soaking in carbolized acid for a few days. As they are animal tissue, they produce little or no irritation in the wound and are finally absorbed. The only difficulty with these ligatures is that they are greasy and slip through your fingers occasionally, making the ligation somewhat troublesome. If carbolized cat-gut ligatures are not to be had, you can soak the ordinary silk ligature in the $\frac{1}{10}$ solution of acid for a few minutes and thus render them antiseptic. Having tied the arteries, I now bring the edges of the wound together with cat-gut sutures, leaving only a portion at the lower end of the flap open for the drainage tube. I now introduce a piece of India-rubber tubing—also carbolized—through the wound, pass a piece of cat-gut ligature through each end so that it will not slip through. I next take a piece of carbolized oil-silk, large enough to extend four or five inches beyond the wound. Moisten it in the $\frac{1}{10}$ solution and cover the stump with it. Then I cover the oil-silk with six different layers of carbolized gauze, as you see slitting up each corner, so that the ends will lap over each other and not wrinkle. Next a piece of carbolized rubber cloth or Mackintosh is placed on the sixth layer of carbolized gauze in the same manner, and the whole dressing is covered with a carbolized gauze bandage extending up the rest of the limb. This constitutes a complete Lister dressing. But your care and your antiseptic treatment does not stop here. That dressing must be changed as soon as any discharge appears, and applied again as you have seen me apply it with the spray and everything else every time any discharge takes place from the wound. It is

often necessary to change the dressings under the spray twice each day, but days and even weeks may elapse without any change being necessary. Two other indications for a change of dressing also exist; and you must pay attention to them whether any discharge is apparent or not. These are a rise in temperature and the occurrence of severe pain in the limb. Careful watching every day until there is complete recovery is absolutely necessary.

Many of these details in Lister's treatment may appear unnecessary—and though an immense majority of the surgeons in both hemispheres, are firm believers in every item, there are a few who oppose their use and who do not believe in the germ theory. But if you analyze their treatment you will find out that they are working along—attaining the same end that Lister did, with simply a change in the materials used for dressing. Take the case of the celebrated London surgeon Callender, who is a so-called opponent of Lister—What does he do? What is his variation from the so-called "fussy" details of Lister. Let us examine. In 1869 and 70, Mr. C. made this change in the treatment of an amputated limb—as a so-called opponent of the Lister method. When the amputation was completed the wound was washed with a $\frac{1}{10}$ solution of carbolic acid. It was next covered with a piece of sheet lint, moistened with carbolized oil—(1 part of the carbolic acid to 5 of sweet oil)—over that was placed a piece of sheet lint thrice folded and moistened in the same strong carbolized oil solution. These layers were covered with a bandage and then a layer of cotton wool was applied, (which you know will prevent the passage of bacteria) and the limb was then placed on a padded splint covered with gutta percha. I cannot see that this was an improvement on the "fussy details" of Lister. The carbolized oil (1 to 5) much stronger than anything Lister used makes a sort of varnish, which in the absence of anything else would make an excellent protective but not so neat or so clean as the carbolized oil silk and gauze. During the past three or four years this dressing of Mr. Callender's has been somewhat varied. When the lips of the wound have been united, and the drainage tube inserted, he covers the stump as before with a piece of lint dipped in carbolized oil, but the solution is not so strong as used previously, yet stronger than anything advised by Lister. It contains one part of carbolic acid to twelve of oil. Over this he places another piece of lint twice folded, dipped in the same solution, and over that again he applies a layer of gutta percha, the whole being covered neatly with a bandage. These three layers of sheet lint are much thicker than all the gauze and oil silk of Lister's dressing, and contain more carbolic acid. In the country where you cannot easily get the carbolized gauze and oil silk you can use either Callender's or Markoe's modification of the Lister dressing, with good results. But whenever you can, I think you will be repaid by using Lister's coverings.

Prof. Markoe, of this city, is also an unbeliever in the germ theory, and in many of the details of Lister's dressing. He covers the surface of the wound with gauze, wet with a carbolized solution. He does not cover the drainage tube, but leaves the ends exposed, and orders the tube to be injected four or

five times each day with a solution of carbolic acid. In this manner keeping the tube full of the antiseptic solution, as well as keeping a fresh supply of the tube in contact with the cut surface. He claims as good results as Lister, and believes that the benefit derived from the use of carbolic acid arises from the fact that the acid has a specific action in promoting healing of tissue and preventing inflammation, and that it does not act by keeping out bacteria.

After all, gentlemen, it matters little whether Lister's theory is correct or not (though I am a firm believer in it), so long as the main points in his treatment are carried out far enough to drive from our hospitals, pyemia, gangrene and erysipelas, and operations once dangerous to life and limb made of very little moment.

EPITHELIOMA—DIFFERENTIAL DIAGNOSIS BETWEEN EPITHELIOMA, LUPUS, RODENT ULCER, AND SYPHILIS.

This patient is forty-eight years of age. Fifteen months ago he noticed a small, hard pimple at the outer angle of the mouth. It was painful on pressure and grew rapidly. Four months after its appearance, ulceration set in: the original wart or pimple was destroyed, and a deep-excavated sore, with hard, indurated edges took its place. This spread rapidly in all directions, until this terrible condition which you see here was reached. The lower lip is completely destroyed, and the cheek of the right side as well, as far back as the angle of the jaw. The destructive process has also spread down the neck as far as the cricoid cartilage, and running underneath the jaw has excavated a hole there an inch in depth. You will notice that the edges of the ulcer are indurated, irregular, and raised a little above the surface, and small spurting masses looking like unhealthy granulations are scattered here and there at the bottom of the ulcer. They are not efforts at repair, as you might suppose; they are not granulations; they are simply irregular and small excavations on the tissues, with small elevations between. Were variations in the ulcerative process at work in the deeper tissues?

The patient is suffering intense pain, is very much emaciated, and has only a few weeks to live. The disease which is destroying him is called epithelioma, a variety of cancer peculiar to mucous surfaces and produced by an immense growth and proliferation of the epithelial cells of the part involved, as well as hypertrophy of the papillæ.

The growth of epithelium is not alone on the surface; it takes place also in the deeper parts of the integument; the cells forming large cylindrical like masses in the interstices of the connective tissue and mucous membrane. The presence of the new formation soon destroys the vitality of the parts in which they are forming; ulceration rapidly takes place; the blood is poisoned, until death terminates the patient's suffering.

There are three other distinctive ulcerations of the face liable to be mistaken for epithelioma. They are lupus exedens, and rodent ulcer. The two former doubtless are nearly related to the cancer family. Indeed, some authorities make no attempt at separating them, but class them both under the same head

as epithelioma. Yet there are distinctive features which will enable you to recognize each variety, and apply the proper name to each. Thus, with regard to lupus. Lupus begins usually as an aggregation of papules, which form a tubercle. Superficial ulceration takes place in the centre of the tubercle, and this is soon covered by a yellowish scab, under which the ulceration progresses. Epithelioma commences as a wart or fissure, and does not scab over like lupus.

After a time the scab on lupus peels off and another one forms, until the skin is destroyed. The edges of the ulcer are soft and not indurated, as in epithelioma. Lupus attacks the nose and lower eyelid in preference to the mouth—the usual seat of epithelial cancer. If you examine portions of the diseased tissues under the microscope you will find masses of epithelial cells in the glands of the skin, but not in the muscles of the connective tissues, as in epithelioma. Rodent ulcer occurs always in persons over sixty, and is much slower in progress than either lupus or epithelioma, taking several years to produce the same amount of destruction. It is apt to attack the forehead and the integument over the temporal bone above the zygoma and the ear. It has no distinctive microscopical appearances. It begins as a tubercle which softens in the centre, extends in all directions and invades even the bones. We can readily distinguish these varieties of malignant ulceration from syphilitic ulceration by examining carefully into the history of the patient. Usually there is a history of chancre, and subsequent development of one or other of the syphilides. If there is no history then we can only rely upon evidences of syphilis on some part of the patient's body—either nodes or the tibia—cicatrices from ecthymatous pustules or ulcerated gummata, or from ulcers on the palate or pharynx. There is one sign of syphilis which I regard as of great importance in the diagnosis of syphilis when the syphilis is denied or where the patient can honestly throw no light on the subject, and that is the occurrence of delicate white and small undepressed spots on the integument, usually of the face—but often on other portions of the integument. I consider these delicate white spots as pathognomonic signs of syphilis. Now, with regard to the treatment of epithelioma. I regret to say that we know of no cure. We can remove them with the knife—with the galvano-cautery, and with caustic preparations, such as vienna paste, nitric acid, etc., but they are sure to return. This patient has got beyond the reach of all these. The only relief will be brought to him by death. When the epithelioma first appears, the cleanest and simplest remedy is removal with the knife. A V-shaped piece of the lip, including the whole of the morbid growth is taken away and its edges brought together by sutures. The patient is given Fowler's solution of arsenic, and a general tonic, is advised to live out-doors, taking exercise and nourishing himself in every way, and avoiding every source of irritation of the diseased part.

TWO LECTURES ON A CASE OF SCLEROSIS OF THE SPINAL CORD AND BRAIN, CHIEFLY AFFECTING THE CORD IN THE POSTERIOR AND LATERAL COLUMNS.

BY
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Reported for THE HOSPITAL GAZETTE, and revised by the Lecturer.

GENTLEMEN.—To-day I bring before you one of the most interesting of the many cases of sclerotic disease to be found in the wards for diseases of the nervous system. Although sclerosis of the spinal cord and brain have been well studied during recent years, and although the literature of the subject has become quite voluminous, yet these disorders involve so many points of interest, clinical, pathological and physiological, that each new case, particularly if it presents peculiar features, should be sufficient to enlist the attention, and even awaken the enthusiasm of the earnest student.

I have in my hand a carefully prepared history of this case, from which at times it is my purpose to draw, but I will, as far as possible, verify statements, and study symptoms before you, as it is only in this way that you can gain that practical familiarity with obscure organic nervous affections, which will be of real service to you in your future lives.

S. W., our patient, is a widow, thirty years of age. Very little in regard to her past history can be learned, as she is never visited by friends, and does not seem able herself to make any clear or reliable statements. She says, however, that she was well until one year ago, when she had typhoid fever, which left her with her present disease. It is probable, I think, that the invasion of the disorder dates further back than her own account would indicate; but in regard to this I have nothing positive on which to take my stand. She has been nearly five months in my wards, and during the last two months in particular has been growing slowly but surely worse. An investigation of her present condition will enable us to become sufficiently well acquainted with the case, as, in a general way, she may be said to present the same clinical phenomena now as when first admitted. Some of her symptoms, such as muscular tension and spasm, peculiarity of gait, impairment of sensibility, difficulty of enunciation, etc., are much more decided than they were four months ago, but the changes for the worse are in degree rather than in kind.

The manifestations in the lower extremities are most striking. On looking at her legs you notice that they, like her arms, are but little if at all wasted. Compared with the rest of her body, they are of good size. Both legs are in about the same general state, so that all that I have to say about one will apply almost equally well to the other. To the hand the muscles of the lower limbs feel firm and resisting. Her thighs and knees are closely drawn together. Seizing her foot and leg, as she sits in the chair, and attempting to straighten or extend the limb, great resistance is offered; the flexors of the thigh become hard and knotted, and she complains of pain in the knee-joint. At the same time,

curiously enough, the antagonistic extensor muscles exhibit some spasmodic stiffness. With a little perseverance and considerable force, I succeed in extending the leg; and now, on letting it go to fall by its own weight, instead of descending abruptly, it bends downward very slowly and even requires some assistance. You have here exhibited a well-marked condition of tonic spasm in the muscles both of extension and flexion. Her feet, which are blue and cold, show a tendency to turn inwards, the heels being drawn upwards.

Let us next examine into her ability to stand and walk. Judging from the manner in which she has gone down hill during the last few weeks, she will soon be unable to leave her bed, but fortunately she still has some power of locomotion.

As she sits in her chair no tremor of any kind is noticeable; her head, trunk and limbs are at rest. Instantly, however, on attempting to rise, a violent tremor starts in her feet and legs, and passes upwards until the whole body becomes agitated. The shaking ceases when she has firmly gained her feet. Observe also that either sitting down, or while getting up, the tremor does not especially affect the head and trunk, as in some cases. She stands with her feet wide apart, and is afraid at first to try to walk. As now, however, with urging, she begins to walk, her gait is seen to be most curious. Her body bends slightly forwards; her feet are kept asunder; her joints seem to be immovable; her legs, even in walking, being held almost rigidly fixed, slightly bent and drawn in at the knees. She walks on the balls of the feet and toes, which scarcely clear the ground more than an inch. She evidently does not use the muscles ordinarily employed in locomotion, but lifts her feet chiefly by a movement of the body and the external muscles of the thighs. She bends to go faster and faster, and sometimes falls headlong. She very quickly tires. When she sits down she does so with a sudden movement backwards, first balancing herself a moment. She can stand with her eyes shut, but sways unsteadily.

Her arms, like her legs, exhibit peculiar rigidities and awkwardness in their movements, but these symptoms are not so marked as in the lower limbs. It is, as you see, quite an effort for her to grasp the dynamometer, owing to her inability to guide the movements of her hand; when once, however, she has a good hold of it, she seems to have a fair amount of strength of grip; with the right hand she is able to mark 15° , with the left 18° . The larger muscles of the arms show a constant spasmodic tendency. The left fore-arm is carried in a condition of partial flexion; the right forearm shows the same inclination to flex but not to the same extent. On taking hold of her hands and forearms these flexions became more marked, extension is strongly resisted, but can be accomplished by a little persistence. The wrist and fingers present no contractures.

Although she could once write a fair hand, as is evidenced by some papers in her possession, every attempt to write, even her name, is now futile; as she makes the effort the pencil is jerked irregularly about on the paper. The want of control of her hand seems to be partly due to a species of large tremor and partly to ataxia, or lack of ability to

direct and harmonize her movements. Her upper extremities show no wasting worthy of note.

No spasm, or paralysis, or paresis of the muscles of the eye or face can be made out. She protrudes her tongue, which is tremulous, slowly; but it does not deflect to either side. The uvula and soft palate are not paralyzed.

She has not suffered to any extent from pains or aches until the last two or three weeks; but since this time she has had occasional sharp pains in the knees and calves; these come and go; they are made worse by handling her limbs, and are also affected by changes in the weather.

With the æsthesiometer I will try to determine the condition of sensibility. Owing to the patient's mental state, it is difficult to do this with precision. Sensibility, however, especially in the feet and legs below the knees, appears to be markedly impaired.

Her sight is defective in both eyes; she is amblyopic. The ophthalmoscope shows partial grey atrophy of both optic discs, more decided in the right than in the left eye. Her pupils generally are somewhat contracted. Nystagmus is not present. Hearing is defective in both ears. Taste and smell seem to be preserved.

Her psychical condition is of interest. She is quite emotional, sometimes weeping and sometimes laughing, without apparent cause. Little things annoy her. She becomes angry and excited at times. Her mind seems to act with great slowness. When spoken to, she looks at you with a fixed stare, listens attentively and apparently understands in a cloudy sort of way. She can answer simple ordinary questions. Her memory is defective, although she can remember *some* remote occurrences very distinctly.

Among the most peculiar of the many peculiar symptoms presented by this patient are those connected with her speech and voice. She has in an almost typical form what is known as the "scanning speech." When asked the other day, for instance, where she lived before coming to the hospital, she answered as if scanning iambic poetry: "Once—I lived—in Can—a—da." She also said to me: "I came—here from—Mauch Chunk." In talking the accent would not always be with absolute definiteness upon the second syllable of a supposed metrical foot, but this seemed to be the tendency, and her slow, monotonous, hesitating speech could be so interpreted. On getting her to read from her prayer-book she does so very slowly and deliberately, occasionally dropping a letter, a syllable, or even a word.

Farado-contractility seems to be well retained in the muscles everywhere. They respond well to a slowly interrupted current of moderate strength.

The tendon-reflexes, as tested both with the patella and the tendon of Achilles, are much exaggerated. By striking the tendo-Achillis the limb can be thrown into a sort of convulsive tremor.

As yet she has not had any special trouble either with her bladder or bowels; she still has good control of them. For several months her menses have not appeared.

What now is the nature of this case? At once, it is evident that the disease from which she is suffering, whatever it may be, is one that affects the central nervous system. Is it cerebral, spinal, or

cerebro-spinal? What is the probable character of the lesion or lesions of the centres?

In the first place, let me say, that only a chronic sclerosis of some kind could give the array of symptoms here mentioned.

When I first saw this patient walk, not having examined her before, my first thought was that I had a fine case of the spasmodic spinal paralysis of Erb, the affliction known as tetanoid paraplegia by Seguin, as spasmodic tabes by Charcot, and which is supposed to be anatomically a primary sclerosis of the lateral columns of the cord. Here was presented a tetanoid condition of the extremities, a state of muscular tension and contracture; here was the characteristic spastic gait, corresponding very closely to the description given by authors; here also ataxic and sensory symptoms did not present themselves with force to our casual glance. A little attention to and closer study of certain symptoms, however, soon led me to see that the disease was not purely spinal, and that in the cord it was not confined to one set of columns. While the muscular spasm and tension, with real or apparent loss of power, and increased tendon-reflexions would point, according to our present pathological notions, to a primary lateral sclerosis; the presence of sensory symptoms and of some true ataxic, and the recent development of lancinating pains, would indicate more or less implication of the posterior columns. Optic atrophy also probably more frequently accompanies posterior sclerosis than any other form of central sclerotic disease. The disorder, therefore, so far as spinal manifestations are concerned, is one that to a greater or less extent affects both lateral and posterior columns, and is probably a form of disseminated or insular sclerosis.

A disease known as amyotrophic lateral sclerosis, first described by Charcot, has some points in common with the affection from which this patient is suffering, but the absence of certain peculiar symptoms would at once exclude this from our diagnosis. In amyotrophic lateral sclerosis, you have a conjoint lesion of both the lateral columns and the anterior horns of gray matter. In this disease, however, in addition to certain of the phenomena which this woman exhibits, you have certain other special manifestations, such as paralysis, with atrophy often very marked, fibrillary tremor, and peculiar permanent contractions due to the spasmodic action of muscles whose antagonists are paralyzed and atrophied. The muscular atrophy in these cases is referred to the degeneration of the gray substance.

I am led to conclude that the disease is not purely spinal from several considerations. The tremor of the tongue and the tremor which affects her limbs on rising, or upon violent exertion or emotion, point to a cerebral involvement. The tremor in this case, I might remark in passing, presents some special features. It does not usually affect the head, and not so much the upper part of the body as the lower. In many cases of multilocal cerebral-spinal sclerosis, the head and trunk are more agitated by rhythmical tremor than any other parts. Nevertheless, the coming on of the tremor after exertion, or its exaggeration by increase or persistence in muscular effort already begun, would make disseminated sclerosis of brain and cord the most probable diag-

nosis. Professor Hammond holds very positively to the view that rhythmical tremor is not encountered in disseminated sclerosis when its lesions are limited strictly to the spinal cord. I incline to accord with this opinion, although my mind is not fully made up, because I have studied many cases clinically in which all the symptoms of scattered spinal sclerosis have been present, but no tremor. In cerebral and cerebro-spinal sclerosis, of the multiple form, tremor is certainly a prominent symptom, and it is probable that it is absent in purely spinal cases. Tremor, indeed, is not a *prominent* phenomenon in the case before you, not nearly as much so as in many cases that I could show you; but at times, as you have seen, it is a manifestation, and it must be taken into account in the study of the symptomatology of the case.

The interference with the special senses of sight and hearing would, on the whole, point to cephalic involvement. It is not at all improbable that a process of degeneration has proceeded to a certain extent in both optic and auditory nerves. It is well known, however, that in locomotor ataxia early in the disorder, the optic nerves are often attacked without any other symptoms of brain invasion being manifest.

The psychical condition and the peculiar physiognomy of the patient lead also to the conviction that the brain here is more or less affected by disease. Charcot, in his *Lectures on Diseases of the Nervous System*, tells us that most of the patients affected by multilobular scierosis, whom he has had occasion to observe, have presented at a certain stage of the disease a truly peculiar *facies*; "The look is vague and uncertain; the lips are hanging and half-open; the features have a stolid expression, sometimes even an appearance of stupor. This dominant expression of the physiognomy is almost always accompanied by a corresponding mental state, which deserves notice. There is marked enfeeblement of the memory; conceptions are formed slowly; the intellectual and emotional faculties are blunted in their totality. The dominant feeling in the patients appears to be a sort of almost stupid indifference in reference to all things. It is not rare to see them give way to foolish laughter from no cause, and sometimes, on the contrary, melt into tears without reason. Nor is it rare, amid the state of mental depression, to find psychic disorders arise which assume one or the other of the classic forms of mental alienation." How nearly is this a word-picture of the condition of the patient before you!

The striking peculiarities of speech and voice make it in the highest degree probable that the pons and medulla are implicated. The channels for the transmission of speech-impulses from the higher cerebral centres to the bulbar nuclei are probably blocked by sclerotic nodules.

The prognosis in this case is bad. The patient seems, indeed, to be getting rapidly worse.

In regard to the treatment I shall have but little to say. The nitrate of silver comes most strongly recommended, and this has been tried, but without success. Ergot, bromide of potassium, and chloride of barium, have also been used, but with negative results. A strong galvanic current applied to the spine has, on the whole, afforded the most relief,

but this has only been temporary in character. Hypodermic injections of atropia, and of atropia combined with morphia, have been used with some benefit for the spasm and pain.

ORIGINAL ARTICLES.

FRACTURE AT THE BASE OF THE CONDYLES OF THE HUMERUS COMPLICATED WITH FRACTURE BETWEEN THE CONDYLES, EXTENDING INTO THE JOINT.

BY

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James C., aged 17 years, came to the Bellevue Hospital, August 20th, 1879, with the following history. While attempting to balance himself on one foot on the top of a cart wheel, he fell backwards to the street, struck his left elbow on a cobble stone. He came at once to the hospital, and I saw him in 15 minutes after the accident. He complained of great pain at the elbow joint. Any attempt at moving the forearm from the position in which he carried it—an angle of 45° —greatly increased the pain. There was no swelling, and very slight ecchymosis over the olecranon process. Looking at the arm it was easy to see from the abnormal contour that there was a fracture through the shaft of the humerus, the lower fragment being displaced backward by the action of the triceps. There was a false point of motion, and the arm not being very muscular, a distinct sulcus could be felt, which showed the fracture to be exactly transverse, and about $2\frac{1}{2}$ inches above the elbow joint.

While making the above examination, my attention was attracted to what seemed to me a sliding of the condyles upon each other, and they looked wider than on the sound limb. I found by actual measurement that the distance between them was three-eighths of an inch greater than on the opposite side. Taking hold of either condyle they were freely movable upon each other, and gave distinct crepitus. Continuing my examination I elicited a symptom, which so far as I know has never been mentioned, and which I consider diagnostic of this condition.

With my left hand grasping the condyles I slowly extended the forearm with my right, and as perfect extension was completed, and the olecranon process settled down into its depression the condyles could be felt to separate under my grasp, and as flexion was made, and the olecranon lifted from its depression, and pressure on the fragments, they could be plainly felt to come together again. Several members of the House Staff were invited to see the case and they detected the symptom and all concurred with me in the diagnosis. Flexing the arm at an angle of about 30° I applied a well padded splint made of shellac cloth which had been previously soaked in warm water and accurately adapted to the irregularities of the arm. This splint differed from Hamilton's Elbow Splint only in the angle. The arm was then put into a

sling and the patient allowed to go home with orders to return for examination the following day. He continued to return daily, I seeing him, but as there was no untoward symptom, I did not disturb the dressings until the fifth day, when I removed them and made a careful examination, which was negative. I re-applied the splint and allowed it to remain on four days longer, being the ninth day after the accident, when I again removed the splint and this time made slight passive motion very carefully. I continued to make passive motion daily, increasing the arc through which the hand was carried each time. The pain was so great that I was not able to extend the fore-arm past the angle at which the splint held it, 30° . On Oct. 3d all dressings were removed, they being deemed no longer necessary. There was marked widening of the condyles and the whole joint was enlarged. Pronation and supination were perfect. Flexion and extension from an angle of 30° was excellent but no ordinary amount of force would extend the arm past this point. Now I think there are two or three points of special interest in this case. First this form of fracture is of rather rare occurrence. Hamilton has seen only six cases. Second, I think this a better result than is the rule in these cases. Hamilton and most other authorities state that ankylosis of the elbow-joint almost always follows. The result in this case has raised a question in my mind whether even better results might not be obtained if these fractures were treated with the fore-arm almost completely extended. Callus, which was thrown out during the process of repair, filled up the olecranon depression so that extension to 30° is all that is allowed. But suppose the olecranon process had been allowed to completely fill its depression by perfect extension and daily passive motion made from the first. Why might not all callus have been kept out and the angle of 30° degrees have been reduced to perfect extension?

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

ADDISON'S DISEASE.

Daniel F., age 33, single, clerk, was admitted August 3d, giving the following history: His father died some years ago of a fever of some kind. His mother and his only brother are alive and well. He himself has always been a healthy man; his hours of work have been long but the physical exertion required, slight. About twenty-five years ago he had some kind of a fever of the exact nature of which he is ignorant. He has never had any venereal disease. Four months ago he contracted a severe bronchitis for which he remained a month in Charity Hospital, and at the end of that time left that institution apparently cured. While there a friend noticed dark, discolored spots on the mucous membrane of his lips and cheeks but no general cutaneous discoloration was apparent. Twelve weeks ago his strength gradually and without any appreciable cause began to fail him and obliged him

to take to his bed. A peculiar bronzed discoloration of the skin was then noticed by his friends. Since that time his languor and indisposition for exertion have increased gradually but steadily. He felt much fatigue after slight exertion and suffered much from dyspnoea and palpitation of the heart. His appetite failed, and he had occasional attacks of nausea and vomiting. His mind has always been clear and active as when he was in the best of health. He has had pains in the lumbar and hypochondriac regions. Vertigo and dimness of sight have occasionally been present, especially after the patient had been reading for any length of time. He has never had any febrile movement. His skin became dotted here and there, particularly upon the back and the posterior aspect of the thighs and legs, with irregular spots averaging one-eighth to one-quarter of an inch in diameter. These spots are of a lighter color than the surrounding integument and are themselves surrounded by a peculiarly dark cutaneous discoloration. The patient's bowels have been usually constipated and his urine normal in quantity and color.

When admitted he complained of general debility and indisposition to physical exertion, of fatigue and dyspnoea after slight exertion, occasional palpitation of the heart, loss of appetite, a little vertigo, and severe pain in the lumbar region. He was a well-developed man and not much emaciated; his muscles were, however, flabby and soft. The skin of his entire body was bronzed. The discoloration was not marked on the face and arms; next in order of darkness came the scrotum and penis, the back and the lower extremities. In the back, thighs, and legs were the peculiar whitish spots with dark encircling borders, and on the mucous membrane of the lips and cheeks were spots of a deep dark color with lighter-colored intervals between them. The sclerotic, the matrices of the nails and the palpebral conjunctiva showed marked anæmia. The skin was cool and the tongue normal. The pulse was somewhat feeble, but in other respects was normal, as were the respiration and the temperature. The urine was pale and clear, contained no albumen, was of a specific gravity of 1020. The testicles were considerably atrophied (?); all the other organs were normal.

Dry cups were applied to the lumbar region for the relief of the pain, and were successful.

August 5th.—The patient now has pains between the shoulders: he was ordered general faradization and central galvanization, *i.e.*, poles to be placed one on the spine and one on the epigastrium; ordered also:

R.	Olei morrhuae	3 viij
	Ferri redactis	3 iss
	Acidi arseniosi	gr.iss
	Glycerinæ	
	Mucilaginis acaciæ aa	3 iv
	M. Sig. tablespoonful	t.i.d

August 12th.—The above mixture does not agree with the patient, and is therefore discontinued. Ordered quin. sulph gr. ij night and morning. Appetite poor; profuse diaphoresis; color darker. Ordered atrop. sulph. gr. $\frac{1}{8}$ at night and whiskey three ounces per day, and nutritious diet.

August 17th.—Temperature during the last week has been always below the normal, $97\frac{1}{2}^{\circ}$ to 98° . His appetite is poor; he vomits, and is sleeping or dozing most of the time. Grows weaker and more listless from day to day, and is delirious during the afternoon and evening. Last evening his passages became more frequent, and he vomited everything that was given him. Ordered brandy, bi-carbonate of sodium, and lime-water and egg-nog, *ad lib.* At 6 o'clock this morning he fainted, but was revived by a hypodermic injection of brandy and aromatic spirits of ammonia. He continued to vomit, could not be made to retain nutrient enemata, and at 8 P.M. died of asthenia.

Autopsy.—Twenty-six hours after death.

Brain.—Normal.

Lungs.—Bound down at all points by old pleuritic adhesions; in other respects normal.

Heart.—Walls thin, seemingly somewhat atrophied; anterior curtain of mitral valve considerably thickened; posterior curtain normal.

Liver.—Contained tubercles on its surface and in its substance, not in large quantity but pretty evenly distributed. None of these tubercles had undergone cheesy or calcareous change.

Kidneys.—The left contained in its upper extremity numerous masses of cheesy and calcareous matter. These began in the connective tissue immediately under the capsule and extended inwards into the cortical substance, but they did not reach the pyramids, except at one or two points at the summit of the kidney. In this kidney the tubercle seemed to have spread from the adjacent suprarenal capsule by contiguity of tissue.

Both kidneys contained miliary tubercles in the mucous membrane of the pelvis of the kidney. In the right the infiltration was principally in the pyramids, and seemed to have spread from the pelvis.

Suprarenal Capsules.—Enlarged, hardened, and fixed by adjacent structures. Filled with spots of white, translucent fibroid, and of yellowish-white cheesy and calcareous degeneration.

Bladder.—Contained a few points of ulcerated tubercles, most of which were at the orifices of the ureters.

Prostate.—Showed extensive fibroid and cheesy change.

Testicles.—Normal.

Intestines.—Showed Peyer's patches enlarged, and at points ulcerated. The solitary follicles were prominent.

Spleen.—Capsule thickened from old perisplenitis; otherwise normal.

Bronchial and Mesenteric Glands.—Enlarged and showing spots of chalky and cheesy degeneration and fibrous increase.

chair. On opening the meeting Dr. Purdy stated that he had visited the president, Dr. Bumstead, and found him in bed, where he had been for some weeks, and expressed his regret that he was unable to be present at the meeting.

The minutes of the last meeting were read and adopted.

A report was received from the *comitia minora* recommending a number of new members, and also that the words "*miseris succurrere disco*" be added to the medal offered as a prize. These recommendations were adopted.

The minutes of the *comitia minora* for the last year were read.

The treasurer reported that the receipts

had been,	\$3,067.66
Disbursements,	1,809.96

Balance,	1,257.70
----------	----------

He stated that many members were in arrears; and moved that the usual annual assessment of \$1 be imposed. It was moved that the report be referred to the auditing committee, but the report of that committee being already on hand, the treasurer's report, together with its recommendation, was adopted.

Elections being in order, it was announced that Dr. Robert Watts, had withdrawn as a candidate for president. Dr. Piffard withdrew as a candidate for censor, and Dr. Andrew H. Smith declined the nomination for treasurer in favor of Dr. Orlando B. Douglass.

It was moved and carried that Dr. Smith be allowed to withdraw and that Dr. Douglass be nominated treasurer *pro tem.*

It was moved and carried that the chairman of the board of tellers cast the ballot of the society for the offices of president, vice-president, secretary, assistant secretary, and treasurer *pro tem.*, as there was only one candidate for each of these offices.

Drs. Hanks and Conrad were appointed tellers, and the election for censors was proceeded with. The report of the committee on Hygiene was read by its chairman, Dr. Peters.

Typhoid fever had diminished since last year, as the following table showed:

	1871	1872	1873	1874	1875	1876	1877	1878	1879
Typhoid Fever.....	156	264	219	176	251	207	170	156	122
Typhus Fever.....	205	317	249	185	273	225	104	160	125
Whooping Cough.....	279	523	204	372	340	341	361	305	266
Scarlet Fever.....	6-8	802	726	730	410	693	781	741	1370
Diphtheria.....	184	269	681	684	1746	1427	616	726	453
Croup.....	276	406	492	380	519	366	308	365	295
Diarrhoeal Diseases.....	2324	3520	3030	2784	2497	3004	2657	2119	2084

From this table of the comparative death rate from the first nine months of the last nine years it will be seen that the present year has a smaller death rate in everything except scarlet fever.

As regards the principal public nuisances, the streets had been every day in a condition dangerous to life and health. This applies to Fifth avenue and Broadway as well as to the other streets, in fact the only streets or parts of streets that were well cleaned were those that were looked after by private individuals. It was believed that many insidious and obscure diseases were caused by this condition of the streets. During the winter, while the pavement

SOCIETY PROCEEDINGS.

MEETING OF THE MEDICAL SOCIETY OF
THE COUNTY OF NEW YORK, OCT., 22,
1879.

(Reported for THE HOSPITAL GAZETTE.)

The meeting was called to order at 8 P. M., th
Vice-President, Dr. Alfred E. M. Purdy, in th

was covered with snow, little or no street-cleaning was done. In the early spring there was a spasmodic activity and this kept on during the summer until the election interfered and then the work was almost dispensed with. The greatest evil was the lack of system in collecting the ashes and garbage, and the next was the delay in removing the street-dirt after it had been swept together. The best plan would be to have a man or number of men in charge of and responsible for each square. The whole matter should be in charge of the board of health.

The condition of the sewers and docks was not by any means all that could be desired. The old sewers were too low, and in some parts have sunk so much that they no longer drain the soil, and the streets and cellars are flooded at high tide, or during a heavy rain. It was proposed to surround the city with a wall of granite from which stone piers should project, and the main sewers discharge their contents well out into the current. This work had already been begun, and was progressing favorably.

The nuisances from manufacturing establishments had been much diminished; that arising from smoke could be still more reduced by a little care in stoking, throwing in the fuel broadcast instead of en masse.

The sanitary condition of the stables and slaughter-houses was, as a rule, good, and the nuisance arising from the latter had been, as much as possible, diminished, by removing them to the extreme east and west sides of the city, away from densely populated neighborhoods.

The most injurious of all the nuisances was that arising from the privy-vaults and cess-pools. There were few, if any of the latter, in the city now; two had been discovered during the year in the business part of the city and removed. It had been found impossible to bring the privy-vaults into a condition consistent with health, and it was therefore proposed to substitute for them, whenever repairs or changes became necessary, water-closets and school-sinks.

The condition of the tenement houses had been much and would be more improved by the inspection now being made.

The Fourth avenue tunnel was badly paved and sewered.

The report of the committee on ethics was read, and the following resolution was adopted:

Resolved, that the business of this committee shall be strictly confidential, and that it shall disregard all anonymous charges.

The committee on prize essays reported advising the award to Dr. Samuel Sexton, 12 W. 35th St.

The tellers being now ready reported as follows: that one vote had been cast for each of the following officers who were accordingly elected. For President, Dr. Alfred E. M. Purdy; for Vice President, Dr. Horace P. Farnham; for Secretary, Dr. Fred'k A. Castle; for Asst. Sec'y, Dr. Wesley M. Carpenter; for Treasurer *pro tem*, Dr. Orlando B. Douglass; for censor 56 votes had been cast of which Dr. J. E. Janvrin received 31, Dr. E. C. Seguin and Dr. D. Webster 33 and were the only three elected. A second ballot was ordered for the remaining two, and resulted in no election the two

candidates standing highest, Drs. Munde and F. V. White receiving respectively 11 and 9 out of 24. On the third ballot Drs. P. F. Munde and F. V. White each received 13 out of 24 votes and were declared elected.

The report of the committee on yellow fever fund was read by its chairman, Dr. Peters.

Receipts,	\$4,998.01
Expenditures,	3,700

Balance,	\$1,298.01
----------	------------

The chairman also read a number of letters from the beneficiaries, acknowledging their gratitude, and most of them stating that they were now in a condition to help themselves.

All the propositions for honorary membership were elected, as follows: Frederick D. Lente, M.D. of Saratoga, N. Y.; John S. Billings, M.D., of Washington, D. C.; Gaetand La Logia, M.D., of Palermo, Italy.

The following amendment to the by-laws was adopted:

Form of Diploma for Honorary Members.
1806.

"MISERIS SUCCURRERE DISCO."

SOCIETAS MEDICA COMITATUS NOVI
EBORACI.

OMNIBUS HAS LITERAS PERLECTURIS
SALUTEM.

VIRUM PROBUM ET ORNATISSIMUM.

(Name)

(Residence)

Quem fama promit scientiarum medicinæ et chirurgiæ cultorem, et ad liberalium artium honores provectum esse, placuit. Nobis Præsidi cæterisque Sociis hujusce Societatis Medicæ Comitatus Novi Eboraci *Socium* constituere *Honorarium*; atque auctoritatem privilegia et immunitates ei donare, quæcunque apud nostrates Medicæ Facultatis sociis rite conceduntur. Eumque ubique terrarum debitis honoribus receptum iri confidimus.

In quorum fidem, hæ literæ, Præsidis et Scribæ manibus, sigilloque Societatis munitæ, lubentissime mandantur.

Datum Novi Eboraci, die.... Octobris, A.D.
MDCCC.

....., M.D.,M.D.
Scriba. *Præses.*

[L.S.]

The annual appropriation of \$1,500, the same amount as last year, was ordered.

The society then adjourned to the 4th Monday in November.

THE HOSPITAL GAZETTE,

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.


EDITED BY

EDWARD J. BERMINGHAM, A.M., M.D.

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NEW YORK, SATURDAY, NOVEMBER 22D, 1879.

EDITORIAL.

FOOD AND COOKING.

The medical press of England is devoting considerable attention to the question of food and its preparation, in anticipation of a short supply of home produce, the consequence of the unfavorable weather during the late growing and harvest seasons. Thus far, these journals have discussed the aspects of the question with reference to the extravagance in quantity and improper styles of cooking, extolling and preferring the French in both of these specifications. An occasional compliment is dropped upon American dishes, and we feel duly proud thereof; the kindly allusion to our pork and beans fills our hearts with especial delight.

The discussion is timely, and must certainly have

beneficial results. Preaching and exhorting are effective according to the circumstances, and lessons on food-economy are singularly effective when the learners are expecting to be put on short supplies. Necessity has a powerful influence upon the human reason, is the most powerful argument that can be brought to bear in any cause.

There is something very appropriate in the discussion of food and cooking in medical journals, for the doctors have continual opportunities of observing the ill effects resulting from the use of improper food, improper in quality or in its preparation. Fully one-half of the occasions when their services are demanded, the cause of the trouble is found to be due to the cook. There is a multitude of ailments that are traceable to the kitchen influence for their origin, and certainly physicians, in this day of preventive medical notions, should not neglect so important an opportunity for benefitting humanity.

It is true that in this country, this season, the people, because of the bountiful crops, do not feel pressed to study such questions, but the duty of the physician to attempt to instruct is none the less apparent.

Considerations of health, wealth and comfort can be urged upon people at all times, intended to effect reforms; and even at the most unfavorable times, good results will come. The shallow philosophy, "that a poor cook is the doctor's best friend," came from greed, and from no higher source. Only ignorant people so proclaim. It is due the doctor that he should repudiate it, by advising and encouraging food and cooking reforms.

It is not necessary that each physician should write a treatise on cooking, but it is requisite that he should be able to do so, for being so able, then he is a competent medical adviser. The force of example in this regard should be recognized more than it is, and never should occasion arise for a repetition of a distinguished M.D.'s excuse. His lectures to students seldom failed to contain a terrible arraignment of cucumbers; however, he always, in and out of season, if they could be procured, insisted upon having cucumbers for his own table. Once, being surprised at his table by some students, the difference between his theory and practice was lamentably disclosed. His excuse was a *settler*. "Dr. B. is my physician, and he recommends cucumbers as an article of food. You are my students."

In conclusion, we feel it to be our duty to suggest to all of our readers that they examine especially some of the more popular prepared foods. It is not proper that we should specify any, but we are assured that some of them are deserving of general praise.

ABOUT BOOKS.

Premature Death—Its Promotion and Prevention—Health Primer—D. Appleton & Co., 549 Broadway, N. Y. 1879, pp. 94.

The author of this valuable little book has evidently given much thought to the subject in hand, and consequently gives us its result in a concise, readable, and well planned work. If anything, the space allotted to the writer is too limited to allow as full and comprehensive a study of some parts of his subject as even he would seem to wish.

He arranges his chapters under four headings:—(a) "The Rudimentary Arithmetic of Premature Death." (b) "The Causes of Premature Death." (c) "The Conditions under which the Causes of Premature Death Operate," and (d) "The Prevention of Premature Death. The first chapter, while of undoubted value, should, we think, have been put last, as the general reader seldom cares to commence a subject with tables and statistics at its very beginning, special remarks as to localities, salubrious and insalubrious, and to the hygiene of workshops, etc., have direct reference to places and factories in England. A chapter devoted to these defects here is needed and would have been well received, giving the work a local coloring and making it more interesting to the readers. Reference to the "trades that kill" might with justice have been made fuller. The terms infection and contagion are happily discussed at p. 24, and the word contagion justly dropped by the author, thus doing away with much needless confusion. The sections on diphtheria and its relation to non-sanitary modes of life and on proper disposal of sewage, etc., are much too brief. The fourth chapter, on the "Prevention of Premature Death" is well written, scientific and worthy of careful study. Much instructive matter is condensed and compressed into this small volume.

SELECTIONS FROM JOURNALS.

THE LACTOSURIA OF LYING-IN WOMEN.

Dr. P. Kaltenbach contributes a long and interesting paper upon this subject to the *Zeitschrift für Geburtshülfe und Gynäkologie*, Bd. iv. s. 163. After a lengthened historical *résumé* of the various and frequently contradictory opinions hitherto held upon this subject by the authors who have studied it specially, Kaltenbach is led to support out and out the deductions of Hofmeister, "that in the urine of women giving suck there is demonstrable the existence of a reducing substance, which from its behavior towards the ordinary tests for sugar may be looked upon as sugar, and that this substance bears a certain relation to the secretion of milk." But Kaltenbach, in the paper we are considering, carries the question a step further, and believes that he has demonstrated that that substance is really sugar, and not merely a substance which responds to the ordinary sugar tests. By a long process of precipitations, washings, etc., Dr. Kaltenbach was able to separate the reducing substance in a crystalline form.

The crystals were colorless, transparent, presenting straight rhombic prisms with ends obliquely cut off, insoluble in alcohol and ether, easily soluble in cold water. At a temperature of about 150° C. they became brown, and gave forth an odor of caramel. Examined in the saccharometer, the solution exhibited a powerful right-handed rotation. Boiled in diluted sulphuric acid the crystals became directly capable of fermentation, *slightly warmed with diluted nitric acid they gave mucic acid*. Repeated experiments convince Kaltenbach that this reaction is able to detect infallibly the slightest amount of sugar. He regards it, therefore, as proved beyond a doubt that there does exist milk sugar in the urine of lying-in women. From another series of careful observations the author finds that the amount of sugar in the urine varies with the condition of the breasts. If they are tense or congested there is found to be an increase of sugar in the urine. He thus is led to give out and out support to the views of du Meulins, du Sinétz, and Spiegelberg on this subject, and maintains that the explanation of the phenomenon is to be found in the intensity of the physiological congestion of the excretory ducts of the milk glands. The amount of this congestion conditions the resorption of milk and its separation in the urine. Finally, our author states that the relation between congestion and the amount of sugar contained in the urine may be most plainly demonstrated in the cases of such lying-in women whose children were born dead, or died during the period of lactation. The quantity of sugar of milk is especially considerable in the urine of patients, in whose cases on account of mastitis, or of badly developed or shrunken nipples, or of puerperal processes, the application of the child to the breast was retarded, and its artificial nourishment rendered necessary, because in them the conditions for the establishment of great obstructive congestion were fulfilled.—*Edinburgh Med. Journal*, Sept. 1879.

VAGINISMUS.

M. Gallard, in the *Annales de Gynecologie*, states that he constantly recommends the gradual dilatation of the vagina by tents of progressively increasing size. According to the circumstances of the case he impregnates these tents with different applications. He also believes that these topical applications aid materially in curing vaginismus. For this purpose M. Gallard recommends the use of iodoform made up into an ointment (iodoform 2 grams, cocoa butter, 2 grams, fresh lard, 2 grams). This preparation may be employed when there is rudeness or excoriation of the mucous membrane. If there is only pain without any visible change in the mucous membrane, extract of belladonna, 2 grams, fresh lard, 15 grams, may be prescribed. In this, as in the previous case, the tents may be as small as possible. After the employment of the iodoform ointment it is well to replace it after a few days, when the redness and excoriations have disappeared, by the belladonna preparation. In both cases care should be taken to increase daily, by an imperceptible but still advancing gradation, the size

of the tent. By this means at no very distant period, a tent is habitually employed which is of such a size as to allow the introduction of the male organ. In effecting this result the action of the narcotic substance and the progressive dilatation have both materially assisted each other.—*Journ. de Med. et de Chir.*, May, 1879.

THE TREATMENT OF EXCITEMENT.

Dr. Campbell contributes some interesting notes upon the treatment of excitement, by sedatives or otherwise. He finds that in the treatment of excitement, if sleep at night could be produced the patient did better than when kept under the influence of sedatives during the day. That though chloral is a most efficacious sleep producer when given at night, yet as a sedative employed in frequent or repeated doses it was dangerous from its depressant effect upon the heart. That in the excitement of general paralysis it was not good treatment to give sedatives that tended in their action to diminish the already impaired powers of locomotion and deglutition. In twenty-eight cases in which continuous sedative treatment was adopted, the sedative chiefly relied upon was bromide of potassium in combination with tincture of cannabis indica, or with tincture of hyoscyamus, compound tincture of valerian, and occasionally tincture of opium. When a sleep-producer was alone required, chloral, in doses of from twenty to thirty grains in a glass of sherry, was found to be amply sufficient. Dr. Campbell further holds that the necessity for giving sleep-producers may be much diminished by open air exercise and employment, in the case of chronic patients who are excited and sleepless. That careful, frequently repeated feeding is as necessary in the treatment of acute and exhausting disease, since its neglect may induce dementia. In the vast majority of cases of acute excitement, moreover, exercise in the open air does away with the necessity for sedative treatment or the use of sleep-producers, whilst it obviates in a great measure recourse to seclusion, but involves extra supervision and more attendants. After a use of bromide of potassium for a space of six years, Dr. Campbell can corroborate the evidence of others as regards its efficacy in the treatment of epilepsy by reducing the number of fits and allaying the irritability which is almost concomitant with epilepsy. He also finds that the morning shower-bath, lasting about half a minute during the summer months, is an important auxiliary in the treatment of excitement in the young of both sexes, whilst in some cases, where excitement appears to be due to ovarian irritation, blistering over the ovaries appears to do good. (*The Lancet*, August 2 and 9, 1879.)

PSORIASIS TREATED BY SUBCUTANEOUS INJECTIONS OF ARSENIC ACID.

A Tichomirow treated a case of diffuse psoriasis vulgaris in a boy ten years of age, by subcutaneous injection of arsenic acid. The case presented the usual symptoms of this disease in its chronic state. Although widely disseminated over the entire body the eruption was most marked upon the extreme

surfaces of the knees and elbows. It had already lasted over a year, and all syphilitic taint could be readily excluded. At the beginning the treatment simply consisted of daily subcutaneous injections of $\frac{1}{8}$ grain of arsenic acid in solution. This amount was gradually increased every three or four days until $\frac{1}{4}$ grain was administered daily. As early as the sixth day of this treatment the scales began to disappear from the back and chest, and did not reappear. When about one grain had been given the infiltration of the face and neck had so far passed off that after inunctions of oil and washing with warm water the surface was perfectly freed. The thighs and nates were the last portions of the body to be freed from the eruption, in consequence probably of the frequent irritation by urine, the boy having been troubled for some years with nocturnal incontinence. The treatment lasted altogether five months, during which time four-and-a-half grains of arsenic acid were injected. The writer claims that this is the third case in the literature of the treatment of psoriasis by this method. The first two were reported by Dr. Lipp, in one of which forty-eight, and in the other thirty-eight days sufficed to effect a cure without the employment of any external remedies whatever. In the former 8.8 grains, in the latter 4.5 grains were administered. (*Moskowskaja Medizinskaja Gazeta*, No. 39. *The Dublin Journ. Med. Sci.*, August, 1879.)

ANTHRAX INTESTINALIS.

At a meeting of the German Medical Society in St. Petersburg (*St. Petersburg Med. Wochens.*, No. 27), the following case was reported by Dr. Kade: A girl, aged 17, a seamstress, presented the following symptoms when received into the hospital:—Her skin was livid; she was very restless and threw herself about; the heart-sounds were very loud; the throat and lower jaw were oedematous; the glands could be felt only with difficulty both here and in the groin; the abdomen was meteoric and painful; the bladder empty. On being spoken to in a loud voice, she answered slowly and sensibly. There was an excoriated patch on her forehead, and a similar one on the inner condyle of the right femur, where the patient said she had had a pustule before. She had been taken ill three days ago with dysphagia, for which she had taken a dose of castor-oil. On the second and third days she felt comparatively well. On entering the hospital, she vomited once, and died three hours later. At the post-mortem examination the subcutaneous cellular tissue in the abdominal walls was found to be hemorrhagically infiltrated; the abdominal cavity contained a serous liquid. The mesenteric and inguinal glands also presented a bloody infiltration. The whole of the intestinal tract was injected. In the duodenum several semiglobular swellings were found, which became fewer in number in the small intestine, and disappeared in the large intestine. The spleen was soft, little enlarged; the liver was not enlarged, and was soft. Punctiform extravasations were found in the pelvis of one of the kidneys. Several bloody pustules, partly degenerated, were found on the ary-epiglottic ligaments. In the apex of the right lung

was a fresh infarct of the size of a walnut. The longitudinal sinus of the dura mater was filled with fluid blood. Minute extravasations of blood were on the external lamella of the sinus. The blood itself contained numerous bacteria.—*British Medical Journal*, Sept. 27, 1879.

THE ACTION OF FERMENTS EMPLOYED AS DIGESTIVE AGENTS.

M. Vulpian (*Le Progrès Médical*, Aug. 16, 1879), on the reading of a paper of M. Mourrut, upon artificial digestion, contributed the following note in regard to the action of the digestive ferments employed in the treatment of dyspepsia. In the lecture at the School of Medicine, delivered last session, M. Vulpian had occasion to discuss the normal and pathological secretions, and was led when considering the secretions which promote digestion to speak of dyspeptics, and of the various means which are employed to relieve them. Foremost amongst the remedies of this kind are the digestive ferments pepsin and pancreatin, to which may be added the vegetable diastase, for various observers have attributed to this ferment the power of assisting the saliva and pancreatic juice in digesting starchy materials. M. Vulpian has made a number of experiments in regard to the action of these substances. He has asked whether the ferment action is exerted freely under the conditions in which the ferments are placed in the stomach; and whether they manifest the same activity under whatever pharmaceutical form they are ingested. By means of artificial digestions, he has readily proved that the pepsins sold by different chemists have not all the same digestive power. In some cases the cooked albumen undergoes a slow but slight change. The addition of alcohol to an acidified solution of pepsin or to normal gastric juice, however, hinders the digestion. Relying upon these negative results, M. Vulpian is of opinion that it is useless to prescribe wines and elixirs of pepsin. Diastase and pancreatin also, when mixed with natural or artificial pancreatic juice, are far from exercising upon starchy materials such active properties as when they are brought into contact with them by means of simple water.—*Practitioner*, Oct. 1879.

SUPERNUMERARY NIPPLES AND MAMMÆ.

Dr. J. Mitchell Bruce, assistant physician to Charing Cross Hospital has made an investigation of this subject (*Journal of Anatomy and Physiology*, July, 1879) based upon the study of 165 cases of supernumerary nipple discovered during the physical examination of the chests of the out-patients attending at the Hospital for Consumption, Brompton, under the care of the writer. The general results may be summarized as follows:

1. That 65 cases of supernumerary nipple were observed within a period of three years.
2. That of 315 individuals taken indiscriminately and in succession, 7.619 per cent. presented supernumerary nipple.

3. That 9.11 per cent. of 207 men examined in succession presented supernumerary nipple; and 4.807 per cent. of 104 women.

4. That in the great majority of instances the supernumerary nipple was single; but it was without exception situated on the front of the trunk below and within the ordinary nipple; and more frequently on the left side than on the right.

5. That the distance of supernumerary nipple from the ordinary nipple was very various, and that from the measurements of these distances a series of numbers may be obtained which may possibly suggest the unit of distance between the successive pairs of nipples in the original type.

6. That a supernumerary nipple, though frequently well marked, is more frequently small or deficient in one or more of its elements—papilla, areola, follicles, or hairs.

7. That in no case was the supernumerary organ physiologically active; but that in a few cases supernumerary glands appeared to be present (in single women).

8. That inheritance was not traced in any instance.

9. That in more than one instance the anterior abdominal wall was the seat of abnormality.—*Mon. Abstract of Med. Sci.*

OBITUARY.

OLIVER WHITE, M.D.

Dr. Oliver White died lately at his residence, No. 52 West Twelfth Street. He was a son of Dr. Ebenezer White, who was noted for the professional aid which he charitably gave to 'tories' and 'rebels' alike in Westchester County during the Revolutionary War. Dr. Oliver White acquired his knowledge of medicine in the office of his father and at Yale College, and was licensed to practice by the State Medical Society of Connecticut in 1831. In 1865 he was one of the Censors of the New York Medical Society, and was one of the promoters of its adoption of the "Code of Ethics." He was one of the original Fellows of the New York Academy of Medicine, and served as its president during one term; he was also for a time presiding officer of the New York County Medical Society. He was a manager of the Society for the Relief of the Widows and Orphans of Medical men for over twenty years, and was consulting physician to the Presbyterian Hospital. Latterly he presided over the medical board of that institution. He was also a trustee of the New York Dispensary. He devoted his life to general practice, and was noted for his charitable disposition and professional devotion.

JAMES AITKEN MEIGS, M. D.

James Aitken Meigs, Professor of Physiology in the Jefferson Medical College, died a few days since, in Philadelphia, with embolism of the heart, produced by blood poisoning. He had long been famous both as lecturer and writer in the department of physiology, ethnology and medicine. He

was born in Philadelphia on the 31st of July, 1829, and was graduated at the Jefferson Medical College in 1851. He became Professor of the Institutes of Medicine in the Philadelphia College of Medicine in 1857. In 1859 he accepted the chair of the Institutes of Medicine in the Medical department of the College of Pennsylvania, and in 1868 he returned to his alma mater, the Jefferson Medical College, as a professor. In 1857 he aided in the preparation of the well-known work entitled "Indigenous Races of the Earth," contributing to it an able and exhaustive article on "The Cranial Characteristics of the Races of Men." He also put forth a number of valuable scientific dissertations on other subjects, and among his daily duties found time to edit and revise "The Manual of Physiology," by Kirk.

PROF. ALFRED HENRY GARROD, M.D.,
F. R. S., ENGLISH PHYSIOLOGIST.

Dr. A. H. Garrod, Fullerian Professor of Physiology at the Royal Institution, London, died in that city on the 17th ult., at the early age of thirty-three years. He was the son of an eminent physician. Dr. Alfred Baring Garrod, F. R. S., was born in London, May 18, 1846, received a medical education at King's College, London; graduated from St. John's College, Cambridge, in 1871, taking the highest honors in the natural history tripos and became a fellow of that college in 1873. He was early distinguished for his researches in mathematics, physics and general biology, and in 1869 began contributing to the *Journal of Anatomy* and the "Proceedings" of the Royal Society a remarkable series of papers on fluctuations in the temperature of the human body while at rest and on the circulation of the blood as recorded by the sphygmograph, an instrument for which he invented several useful improvements. His attention was turned from physiology to morphology in 1872 by receiving the appointment of Prosector to the Zoological Society. In this capacity a vast mass of new material was submitted to his examination and he was enabled to pursue, publish and illustrate a most important series of original observations upon the comparative anatomy of the vertebrate animals. He devoted great attention to mythology and the visceral anatomy of birds, and threw much light upon the difficult and obscure subject of their structural affinities. Not content with his vast labors at the Zoological Society he sought and obtained, in 1874, the professorship of zoology and comparative anatomy in King's College, London, and in 1876 the Fullerian professorship of physiology at the Royal Institution. He was appointed in 1875 one of the examiners in the "Natural Science Tripos" at Cambridge, and in 1876 was elected a fellow of the Royal Society, when he had but just completed his thirtieth year. Professor Garrod was a frequent contributor to *Nature*, and was recognized as the leader of the younger generation of British physiologists, and his room at the Zoological Gardens had become the favorite resort of many diligent workers whose studies he eagerly assisted without a thought of jealousy or mistrust. He possessed great skill in illustrating scientific

discoveries to non-scientific audiences by means of diagrams or mechanical devices, and overtasked his strength by his efforts to make known his rich stores of knowledge. For the past year he had been suffering from phthisis, and knew that his end was approaching, but could not be induced to forego his accustomed labors of research and instruction. Seldom has a career of richer promise been terminated by an early death.

NEWS ITEMS AND NOTES.

The Influence of Temper on Health.—Our English contemporary, *Capital and Labor*, which is generally correct in its assertions, thinks that, while excessive labor, exposure to wet and cold, deprivation of sufficient quantities of necessary and wholesome food, habitual bad lodging, sloth, and intemperance, are all deadly enemies to human life, none of them are so bad as violent and ungoverned passions. Men and women have survived all the former, says the writer, and at last have reached an extreme old age; but it may be safely doubted whether a single instance can be found of a man of violent and irascible temper, habitually subject to storms of ungovernable passion, who has arrived at a very advanced period of life. It is, therefore, a matter of the highest importance to every one desirous of preserving "a sound mind in a sound body," to have a special care, amid all the vicissitudes and trials of life, to maintain a quiet possession of his own spirit.

The Sphygmophone.—In this age of invention, a discovery that may perhaps revolutionise a trade and overturn our dearest belief, is of such ordinary occurrence that it excites little attention. One of the latest of these inventions is the sphygmophone, a useful adaption of the telephone to the pulse, by Dr. Richardson, F. R. S. The needle of the sphygmograph is made to move upon a metal plate, which is connected with the zinc pole of the Leclanché cell. The metal stem of the sphygmograph is then united to one terminal of a telephone, and the other terminal is connected with the other pole of the battery. The needle is permitted to traverse the plate with every pulsation, and the result is to give three distinct sounds from the telephone, one long and two short utterances, somewhat resembling the words "bother it," says Dr. Richardson, which correspond with the first, second, and third events of the sphygmographic tracing. By these means the pulse can be heard by several hundred persons, and if the wires were extended the patient's beats could be heard at a considerable distance.

Gun-Shot Wound of the Uterus, the Bullet Traversing a Six Months Fœtus-Recovery.—Dr. Geo. A. B. Hays, of Plaquemine's Parish, reports a case in the *New Orleans Medical and Surgical Journal* for October, in which a ball, weighing 136 grains, penetrated the abdominal cavity at the left side, about two inches in front and above the anterior superior spinous process of the ileum, ranging upwards, and lodging in the abdominal cavity. The woman was a six months pregnant primipara. Labor pains set in the next day and the woman gave birth to a fœtus, examination revealing that the ball had penetrated beneath the left scapula, ranged diagonally through the trunk a distance of about three inches, and made its exit in the right hip. Puerperal fever set in with peritonitis, but the patient was dismissed, well, in a month after the injury was inflicted.—*N. C. Med. Jour.*

Barber and Doctor.—A correspondent writes to us: "The following illustrates the value of the services put upon the two professions by country guardians. The barber at Barnsley Workhouse receives about £32 per annum for shaving and hair-cutting, and attends twice-a-week. The doctor receives £70 per annum, and attends every day and throws in all medicine. The other day, he asked for an increase of salary on account of the large increase of work (amounting to one hundred and fifty sick daily), and was told by the guardians that his application 'was inopportune.'"—*Ibid.*

Detroit Medical College.—Changes in its method of teaching, and its requirements for graduation, to go into operation at and after the session of 1880-'81. (Adopted October 21st, 1879. I.—A preliminary examination will be required of all matriculants at Detroit Medical College who expect to become candidates for graduation, and who do not present other satisfactory evidence of the preliminary education deemed necessary for those entering upon the study of medicine. II.—Certain portions of the study of medicine will be assigned to each one of three regular sessions, and final examinations on these portions will be held at the end of each session.

The following plan has been adopted by the Faculty, subject to such modification in detail as may seem advisable, before it goes into actual operation.

Matriculation Examination.—Applicants for admission to the Detroit Medical College for the session of 1880-'81, and thereafter, will be examined, as follows:

(a.) They must show their proficiency in English composition by writing an essay on any subject assigned, not to exceed in length one page of foolscap.

(b.) In mathematics they are expected to show a familiarity with the principles of arithmetic, including decimal and vulgar fractions, and with those of Algebra, including simple equations.

(c.) In physics or natural philosophy they will be expected to know as much as is contained in Balfour Stewart's Elements, or any equivalent text book.

In place of this examination the College will accept the degree of A.B., B.S., Ph.D. certificates of having passed the entrance examination of any incorporated Literary College, or of any recognized Medical College in which an examination is required for admission; also certificates of having graduated at any high school or academy, or having attained proficiency in any such school in the subjects of the above mentioned matriculation examination.

At the discretion of the examining committee, any student failing in one or more parts of this examination may be admitted to the junior class, on condition of his making good the deficiency within a specified period.

Examinations for admission will be held on Monday and Tuesday preceding the opening of the regular term.

Courses of Lectures.—Three regular courses of lectures given in three distinct years will be required for graduation.

Each regular course will begin the second Wednesday in September, and continue until the second Tuesday in March.

The Preliminary Session will be merged into the regular session.

The Optional Spring Session will be continued.

Final Examinations.—At the close of the first year, examinations will be held in Descriptive Anatomy, General Chemistry, Physiology of Nutrition and Materia Medica.

At the close of the second year, examinations will be held in General and Surgical Anatomy, Medical and Physiological Chemistry, Physiology of the Nervous System and Reproduction, Therapeutics and Pathology.

At the close of the third year, examinations will be held on Practice of Medicine, Surgery, Obstetrics, Diseases of Women, Diseases of Children, and Diseases of Eye and Ear.

Examinations in Practical Laboratory work will be held at the end of the several practical courses. Certificates of having satisfactorily pursued courses both in the Chemical, Physiological and Anatomical laboratories, and in daily Clinical work at Hospitals and Dispensaries will be required of each student before the final examination of the third year.

Candidates failing to pass examination in one branch only, at the close of the first or second year, will be allowed to go on with the studies of the next year, on condition of making up the deficiency within a definite period. Those failing in more than one branch, will be obliged to fall back one year in their course, but the fees in every case will be the same as though they had not failed.

Students who have attended one full course at a recognized medical college will be admitted to the middle class, but they will be required to fulfill the conditions of the matriculation examination, and to pass at the end of the session an examination upon the branches of the first and second year.

Students who have attended two full courses at other recognized medical colleges, and graduates of other recognized medical colleges will be admitted to the third year, but they will be required at the close of the session to pass examinations upon all of the branches examined upon during the three years.

If possible, the union between the didactic, laboratory and clinical teaching will be closer than hitherto. Students are expected to attend the clinics daily.

Attendance upon lectures other than those in regular order is optional, but the student is advised in the main to confine his attention to the subjects included in his own course.

Daily practical work in one of the several laboratories will be continued throughout the first two years. Daily practical clinical work will be required during the third year.

Fees, &c.—Matriculation or Registration fee, once a year, \$5.00.

Lecture fees for the first regular term... \$75 00

" " for the second regular term... 75 00

" " for the third regular term... 50 00

Hospital tickets free.

Spring Recitation term, \$10.00, to all who have attended the regular term; all others are charged \$25.00, but \$15.00 will be applied on the fees for next regular session attended. Graduation or Final examination fee, \$30.00.

Other conditions of graduation are as in former years.

Students and graduates who have attended the third year course, and all Alumni of the College, may attend any number of subsequent courses on payment of the Matriculation fee.

These new requirements will apply to those ONLY who begin attendance at the Detroit Medical College as students at or after the session of 1880-'81. All students in attendance during 1879-'80, may graduate under the old requirements.

LEARTUS CONNOR, M. D.,

Secretary of Faculty.

Dr. Eugene Peugnet.—At a special meeting of the Yonkers Medical Association, held Oct. 12th, the following minute was adopted.

The Yonkers Medical Association desire to express their deep sense of the loss they have suffered in the death of Eugene Peugnet, M.D., of Fordham, N. Y., a member of the Association, who has so suddenly been taken from our midst, and to put upon record also their appreciation of his character as a man, and of his marked professional attainments.

He was ever a regular and faithful attendant upon the meetings of the society, and was always ready to do his part contributing largely to their scientific interest. By his eminent ability and peculiar qualifications as a surgeon he gave to the meetings a superior tone and dignity. He exhibited a rare example of one whose interest and aim were directed towards elevating the character of the profession which he so dearly loved. We desire as a body to offer to those whose home his death has made desolate our sincerest sympathy and to make our prayer that He who has visited them with trouble would look with pity upon their sorrows, would remember them in mercy and comfort them with a sense of His goodness, lifting up His countenance upon them and giving them peace.

R. A. JOYCE, M. D.,

ARCH. M. CAMPBELL, M. D.,

F. S. GRANT, M. D.

} Committee.

"Wonderful things are done now-a-days," said Timmins. "The doctor has given Flack's boy a new lip from his cheek." "Ah," said the lady, "many's the time I have known a pair taken from mine, and not a very painful operation either."—*Lancet and Clinic.*

In the new Buffalo Homœopathic College it is announced officially that "during the lectures, and amphitheatre clinics also, the female students are screened from the gentlemen, while they have the same advantages."

For the week ending August 31st, 1879, twenty-two deaths from cancer occurred in this city.

Brown University has made Dr. Isaac Ray, of Philadelphia, an LL.D. We know of no one more worthy of the honor.

German Medical Students.—The last edition of the *German University Calendar* gives the number of medical students in the principal universities for the summer session of 1879 as follows:—Vienna, 697; Munich, 503; Wurzburg, 458; Dorpat, 436; Berlin, 412; Leipzig, 389; Griefswald, 244; Breslau, 181; Freiburg, 174; Tübingen, 174; Zurich, 168; Strassburg, 166; Bonn, 144; Halle, 143; Göttingen, 141; Bern, 138; Graz, 137; Heidelberg, 136; Marburg, 126; Königsberg, 125; Erlangen, 121; Jena, 100; Giessen, 98; Kiel, 97; Bale, 77; Rostock, 37.

Conscription and Mutilation.—The Tribunals of the Department of the Seine have been occupied lately with rather a curious question in connection with voluntary mutilations practised by young men in that department with the object of escaping the conscription. This operation appears to consist in the deformity of the big toe or of one of the great toes, produced by an induced retraction of the flexor muscles. The individual affected with this deformity is unable to walk with the full surface of the foot on the ground, and hence becomes unfit for military service. According to the results of the inquiry, it appears that this mode of mutilation has been practised in the country for more than forty years, and that since 1839 it has been the custom to exempt all the conscripts affected by this deformity. The precise mode of deformation has not been ascertained, and appears to be a secret which the military surgeons who have examined the question have been unable to penetrate. It seems, however, that in the particular case which led to the inquiry, the young man, who had formerly been a good walker and active dancer, had throughout the winter in which the deformity was produced, rarely gone out of the house, and that he had abstained completely for some months from appearing at the village dance. It seems remarkable that for forty years it has been possible to carry on this induced mutilation in all the conscripts, except three, of one village with success; and the question appears to be one which French physicians think worthy of much further investigation.

The Comparative Value of Tannate and Sulphate of Pelletierine in the Expulsion of Tapeworm.—Dr. Berenger-Féraud is of opinion that the tannate is a very advantageous salt, having a more certain action than any other. A purgative, consisting of 30 grammes of castor-oil, or 30 grammes of compound tincture of jalap, or 45 grammes of sulphate of soda, should be given a quarter of an hour beforehand; and this produces motions more easily and causes less often nausea and vomiting.

ARMY AND NAVY NEWS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCT. 18, 1879, TO NOV. 7, 1879.

J. H. Bartholf, Capt. and Asst. Surgeon. His temporary detail at San Diego Barracks, Cal., to terminate on 31st ult., and to return to Alcatraz Island, Cal., and resume his duties as Post Surgeon. S. O. 130, Div. of the Pacific and Dept. of Calif., Oct. 15, '79.

D. G. Caldwell, Capt. and Asst. Surgeon. Upon withdrawal of troops from Ft. Independence, to report to Comd'g officer Ft. Warren, Mass., for duty, as Post Surgeon. S. O. 165, Dept. of the East, Oct. 20, '79.

B. J. D. Irwin, Major and Surgeon. Having reported for duty at these headquarters, he is assigned to duty at Fort Meade, D. T. S. O. 116, Dept. of Dakota, Oct. 21, '79.

W. D. Wolvorton, Major and Surgeon, assigned to duty at Fort A. Lincoln, D. T. S. O. 115, Dept. of Dakota, Oct. 18, 1879.

J. R. Gibson, Major and Surgeon. Having reported at these head-quarters to proceed to Fort McHenry, Md., and report to the commanding officer for duty. S. O. 192, Dept. of the East, Oct. 28, 1879.

W. S. Tremaine, Captain and Assistant Surgeon, Fort Dodge, Kans. Granted leave of absence for one month on Surgeon certificate of disability, with permission to leave the department, and apply for two months extension. S. O. 214, Dept. of the Missouri, Oct. 27, 1879.

J. D. Hall, Captain and Assistant Surgeon, Fort Concho, Tex. Granted leave of absence for one month on account of sickness. S. O. 221, Dept. of Texas, Oct. 20, 1878.

H. S. Kilbourne, 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Porter, N. Y., S. O. 189, Dept. of the East, Oct. 24, 1879.

Wm. R. Hall, 1st Lieut. and Asst. Surgeon. Upon the termination of his services at Camp Winfield Scott, W. T., to proceed to and take station at Fort Coeur d'Alene, Idaho. S. O. 142, Dept. of the Columbia, Oct. 10, 1879.

Chas. Sutherland, Col. and Surgeon. Having reported at Division Headquarters, as Medical Director of the Division, is assigned to duty at the Presidio of San Francisco, Cal., from this date. S. O. 134, Div. of the Pacific and Dept. of California, Oct. 24, 1879.

C. E. Munn, Capt. and Asst. Surgeon. To take post at Ft. Hays, Kansas, and after reporting there to proceed to Ft. Garland, Col., and report to Col. McKenzie 4th Cav'y. for duty with the column now organizing there. S. O. 217, Dept. of the Missouri, Oct. 30, 1879.

Hoff, J. V. R., 1st-Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Shufeldt to comply with orders from A. G. O., in his case. S. O. 98, c.s., Dept. of the Platte.

Shufeldt, R. M., 1st-Lieut. and Asst. Surgeon. Relieved from duty at Ft. Laramie, and assigned to duty as Post Surgeon at Ft. Fetterman, Wyo. T., s.o., 98, Dept. of the Platte, Oct. 29, 1879.

Appel, A. H., 1st-Lieut. and Asst. Surgeon. Assignment to duty at Ft. Bennett, revoked to repair to Ft. Pembina, Dak. T., and report to the Comd'g officer for duty as Post Surgeon. S. O., 118, Dept. of Dakota, Oct. 27, 1879.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY FROM OCT. 17TH TO OCT.

31ST, 1879.

P. A. Surgeon E. H. Green, detached from Recruiting duty at St. Louis and W. O.

Medical Inspector Somerset Robinson, detached from special duty under the National Board of Health, proceed home and W. O.

Medical Director S. T. Cones, detached from Naval Hospital, New York, and ordered to special duty attending officers at Boston, Mass.

Medical Inspector D. Bloodgood to the Naval Hospital, New York.

Surgeon T. Woolvorton, detached from the Kearsarge, and to hold himself in readiness for the U. S. S. Powhatan.

P. A. Surgeon W. A. Convin ordered to the U. S. S. Kearsarge.

P. A. Surgeon Robt. Swan, detached from the Naval Academy, and ordered to the U. S. S. Kearsarge.

Asst. Surgeon J. C. Byrnes detached from the U. S. S. Kearsarge, and ordered to report Nov. 10th at the Naval Hospital, Chelsea, Mass.

Asst. Surgeon S. H. Dickson detached from the Naval Hospital, New York, and ordered to the Naval Hospital, Norfolk, Va.

P. A. Surgeon E. H. Green ordered to the Naval Academy, Annapolis.

SPECIAL NOTICE.

Names of subscribers, who receive this number of THE HOSPITAL GAZETTE, are here favourably compared with those of the other medical journals of the country. We have to thank the many subscribers who have taken the trouble to send us their names, and we are glad to see that the number of subscribers is increasing. We are sorry that we cannot give the names of the subscribers, but we are glad to see that the number of subscribers is increasing. We are sorry that we cannot give the names of the subscribers, but we are glad to see that the number of subscribers is increasing.

LECTURES.

CLINICAL LECTURES ON VENEREAL DISEASES.

Delivered at Charity Hospital, 10, FLOWER STREET.

TO THE STUDENTS OF THE MEDICAL COLLEGE OF THE UNIVERSITY OF THE CITY OF NEW YORK, SUMMER OF 1879 AND 1880.

BY
F. R. STURGIS, M.D.,

Clinical Lecturer on Venereal Diseases in the University, Surgeon to Charity Hospital, Department of Skin and Venereal, etc., etc.

(Reported by Dr. H. H. G. and Dr. R. H. G.)

LECTURE I.

SYMPTOMS OF VENEREAL DISEASES.

GENTLEMEN:—Before calling your special attention to the cases which I have brought from the wards for the purposes of illustration to-day, it may not be inapt to define what is meant by venereal diseases, and to set before you the principal groups into which they are divided.

Speaking broadly, venereal diseases are those due to, and originating in sexual contact, and, although many forms of these diseases are transmitted without any sexual contact, as I shall show you further on, the name may for convenience sake stand. They are at present divided into three principal groups or divisions: *Gonorrhœa*, *Chancroid*, and *Syphilis*. Each distinct and separate, one from the other, having nothing in common with each other, although they may all be present upon the same person at the same time, and possessed of certain characteristics which are more or less peculiar to themselves.

Of these three diseases, only the last one, syphilis, is constitutional, the other two, gonorrhœa and chancroid, are local. Remember then, gentlemen *gonorrhœa and chancroid are local; Syphilis is not; it infects the entire system.*

In the lectures which it was my pleasant duty to give before you in the spring course, I dwelt at length upon gonorrhœa; less so upon chancroid and syphilis, and this with a purpose.

Here in the amphitheatre of the hospital I can bring you face to face with cases of syphilis; you can have better facilities for examining the cases for yourselves than at the college, and if you expect to learn you must handle and examine the cases yourselves; no one else can do so for you, and the first case I present for your consideration is a case of chancroid in a male subject.

The history, I regret to say, is imperfect, no uncommon occurrence in cases coming into this hospital, but from what I can glean from him and

the raw and book, his story, which you see, is a pretty large one, came on two or three days after coitus and was at first quite small. Here is a point to which I wish you to attend, one of the most important upon which to base your diagnosis of a *chancroid* and equally noteworthy as a differential mark between this lesion and the first manifestation of syphilis; what is commonly known as *chancre*. *The sore came on two or three days after coitus*; in other words, but a short time elapsed between the infecting connection and the resulting ulcer. The effect was almost immediate.

When we come to treat of syphilis we shall find that this is no longer true; an appreciable interval elapses between cause and effect; what is technically called the period of incubation.

Chancroids then, gentlemen, have at the most a *very short* period of incubation, sometimes *none* at all, and this depends much upon the manner in which the poison, or virus so-called, is deposited beneath the mucous membranes. If in coitu the membrane is abraded, or torn the chancroidal action begins at once, while on the other hand it is delayed if the matter is deposited in a fold of mucous membrane, or in a follicle, but even then the delay is one usually of only 36 to 48 hours.

Another circumstance in the case is worthy of remark; the ulcer has *increased in size*, at first it says it was quite *small*. This denotes in chancroids a tendency to spread and become larger instead of smaller, a tendency due to the destructive character of the poison. Let me say here a word or two about this virus or poison. It holds in venereal parlance much the same position that the letters x, y and z do in algebra, it is an unknown quantity. No one has yet demonstrated the existence of the virus of chancroid except by the results, and on the principle of what is non-apparent is non-existent; some entirely deny the presence of a virus and claim that these two diseases are due to some other cause. Be that as it may the term is one of great convenience and it would be difficult to find a good substitute. I shall therefore in these lectures retain it and I beg you will remember that it means an indefinite something endowed with certain properties which varies in these two diseases and produces different results.

To return to our chancroid. Two points we have brought out, gentlemen, and mark them well. 1st. *A period of incubation at the most, very short, sometimes absent*; and, 2nd, *a tendency to destructive action*. Let us now examine the sore and see what else we find. We notice *one* rather large ulcer of *irregular* shape, *uneven* floor, a moderately *copious, purulent* secretion (this has been somewhat modified by treatment) and on putting the ulceration on the stretch we observe that it extends beyond the *apparent* edges of the sore. I repeat *apparent edges*, gentlemen, because this peculiarity has a decided bearing upon treatment. Chancroids frequently burrow, going along faster below than they do above, hence the external aspect of the sore is no necessary index of its real area; the edges of the ulcer are *undermined*, and if in the treatment you decide to destroy the chancroid by caustics *convey the destructive agent beneath the edges and beyond the apparent limits of the sore, even into sound tissues.*

The number and shape of the ulcers are the next points which invite discussion. In this subject there happens to be only one, but such is not always the case, as witness this second man. Here we find three chancroids of various sizes. This multiplicity may be produced in one of two ways, either as original foci of infection, or by inoculation.

Note therefore that the chancroid is capable of self-propagation upon the person having it, and also upon others to whom the poison may be conveyed.

It is eminently *contagious* and *auto-inoculable*. I shall call your attention again to this point when I come to speak of the initial lesion of syphilis (chancre). In shape the sore is irregular, owing partly to its seat, on the inner layer of the prepuce and the fossa glandis, and partly to the natural tendency chancroids have of spreading irregularly and sending out shoots, but there is often another reason. Several chancroids may be seated close to each other, and by destroying the intervening sound tissue present to view an ulceration with irregular scalloped edges.

The secretion, as has been already said, is *copious* and *purulent*, caused by the *destruction* of tissue, and pus, as you know, is *debris*.

Have we explained all the noteworthy characters presented by this chancroid? By no means, for upon handling it we are struck by the fact that though the ulcer is large and angry-looking, the tissues upon which it is seated are perfectly supple and soft. And here let me give you a word of warning as to the use of the word *soft*, which has proved a fruitful cause of misunderstanding. Better expunge the word from your venereal vocabulary and call the chancroid a *simple venereal ulcer* as contra-distinguished from the initial lesion of syphilis (chancre), which is termed the *specific venereal ulcer*. In the discussions which in former days have been had upon the nature of these two ulcers, it was stated and generally believed that no soft sore, *i. e.*, one which had no induration at the base, was ever followed by syphilitic manifestations. This belief has now been proved to be erroneous, and sores devoid of indurated bases have been the precursors of secondary symptoms, in other words, the initial lesion of syphilis may be soft. The importance of this you will see later on. If this be true the inapplicability of the term to a chancroid is apparent, for a *chancroid is never followed by general manifestation, the initial lesion always is*, except under certain special circumstances, of which later on. Do not therefore call the chancroid the *soft* venereal ulcer, but *simple* venereal ulcer, if you do not wish to use the word chancroid.

Now, to come back to our chancroid, which has been waiting patiently for us. We find *no* induration at the base, the tissue upon which it is seated is perfectly supple and yields readily to pressure, in a manner entirely different from what it does in this third patient, who is the subject of an initial lesion and beneath whose sore, on palpation, you can discover a gristly hard substance, the nature of which you will learn more about bye-and-bye. We have then discovered another trait of a chancroid, to-wit: an absence of indurated base, but remember this loses some of its diagnostic importance, from the

fact that the initial lesion (chancre) sometimes presents the same peculiarity.

To close this lecture, let me sketch upon the blackboard the salient features of a chancroid, such as we have discovered upon the cases examined today. They are these:

Absence, or at most a very short period of incubation.

Tendency to spread irregularly in size and depth.

Tendency to undermining of the walls of the ulcer.

Copious purulent secretion.

Contagious and auto-inoculable character of the pus, thus producing multiple sores.

Absence of induration of the base of the ulcer.

At our next meeting, gentlemen, I shall discuss with you the action that the "chancroidal virus" has upon glands, the complications which may ensue, and finally to consider the treatment and its results.

TWO LECTURES ON A CASE OF SCLEROSIS OF THE SPINAL CORD AND BRAIN, CHIEFLY AFFECTING THE CORD IN THE POSTERIOR AND LATERAL COLUMNS.

BY

CHARLES K. MILLS, M. D.,

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Reported for THE HOSPITAL GAZETTE and Revised by the Lecturer.

LECTURE II.

GENTLEMEN:—Some of you will remember that more than two months ago I discussed, with the patient before you, the symptoms of a case which I concluded to be an illustration of the disseminated form of sclerosis of the spinal cord and brain. Today I have the good fortune to be able to show you some specimens, macroscopic and microscopic from this case.*

When the patient appeared in your presence in the clinic room, I stated that she had been for some time growing steadily and somewhat rapidly worse. In spite of all efforts to help her, this downward tendency continued. Her legs gradually became more rigid and immovable. Her arms also grew worse, tonic spasm or contracture of the flexor muscles, especially of the biceps, becoming very marked. Occasionally she would roll out of bed, or, on attempting to get in bed on one side, would tumble out on the other, probably because of the immobility of her limbs, and her general helplessness, which was always fast increasing. Tremor of the tongue, and general tremor on exertion or excitement, became more exaggerated. Her complaints of pains, particularly about the knees and elbows, were more and more frequent. She also now and then would have terrific stabs of pain in her legs, thighs, arms, or trunk. Her special senses

* The present lecture, as indicated above, was delivered more than two months after that published in the last number of THE GAZETTE, but the two are given in succession, as they serve to complete the history of a highly interesting case.

were not again minutely examined, but her sight seemed to get dimmer. Her intellect became more obscured. She sometimes cried excessively. Her speech got more monotonous, and eventually so thick as to be unintelligible.

Two weeks before her death she became utterly helpless. She had involuntary passages from her bladder and bowels. Her suffering was intense; the pains in her limbs seemed to be torturing; they became very tender to pressure; handling them would cause her to scream. Five days before her death her knees became red, hot, and swollen; and two days later, her ankles got into a similar condition. They looked like the joints of a patient suffering from severe inflammatory rheumatism. A sacral bed-sore formed. Superficial sores or abscesses also appeared on each heel, over the right internal malleolus, and at the base of the big toe of the right foot on its inner, dorsal aspect. She had gradually increasing difficulty of respiration; and some dulness on percussion was present over both lungs. Her face had the appearance of one in great agony.

During the last week she had high fever, and was almost constantly bathed in perspiration. The following is a record of her pulse, respiration, and temperature during the four days preceding her death:

	<i>Pulse. Respiration. Temperature.</i>		
Morning,	105.	37.	104° F.
Evening,	115.	47.	103°.
Morning,	119.	49.	103.2°.
Evening,	102.	53.	103.8°.
Morning,	112.	50.	104°.
Evening,	120.	52.	104°.
Morning,	130.	59.	105.4°.
At 4 P.M.	159.	63.	108.4°.

She died at 4:50 P. M. Her temperature was taken half an hour after death and was found to be 110°.

A post-mortem examination was made twenty hours after death. Rigor mortis was marked. The patient's body was in good condition as regards nutrition. Her face was thin, but her limbs were only very slightly wasted. Numerous pleuritic adhesions were found at the lateral and posterior parts of the right lung. Both lungs were highly engorged and oedematous. The right ventricle contained abundant fluid blood, and a fatty looking clot. All the valves were sufficient; a slight roughening was, however, present on one of the crescents of the aortic valve. The heart-walls were apparently in an early period of fatty degeneration. The stomach towards its pyloric end was markedly congested. The small intestine was generally congested, and towards its lower end showed evidences of beginning ulceration. The spleen was soft and pulpy. The right ovary was shrunken. Nothing else abnormal was found in the thoracic, abdominal or pelvic viscera; except that the organs everywhere gave the impression of ante-mortem congestion.

The skull and dura mater presented nothing abnormal; the latter was not adherent. The pia mater of the convexity was cloudy throughout its entire extent; the pia of the base was clear. The vessels of the meninges and brain presented nothing unusual, except some engorgement. Both lateral ventricles were filled with a serous fluid. No macros-

copical appearances of the convolutions were detected. A few light gray spots were found in the white matter of both hemispheres. The optic thalami felt very firm and hard. On cutting into them, especially into the right, a distinct sense of resistance was experienced. A number of patches, or rather masses, some very small and some larger, were found in these ganglia; they were of a gray or reddish-gray color. The corpora striata were not changed, at least not to an extent that could be observed by the unaided eye. The crura cerebri, pons varolii, and medulla oblongata exhibited numerous gray masses, particularly in their middle and posterior portions. In the medulla these were so diffused as to form almost continuous bands. The floor of the fourth ventricle showed distinct gray change. These parts both to the hand and to the knife on section, offered considerable resistance. Nothing abnormal was noted in regard to the cerebellum.

The spinal cord was carefully removed. The bones, periosteum and dura mater were normal. The pia and cord presented evidences of general congestion. The shape of the cord was peculiar. Instead of presenting the two enlargements—cervical and lumbar—it tapered continuously from the cervical enlargement, which was about normal in appearance, to its termination. In other words, the lumbar enlargement and lower dorsal portion of the cord, were to the naked eye atrophied and shrunken in a most remarkable manner. Well marked grey discoloration of the cord was seen everywhere on its lateral and posterior aspects. In the lumbar, and up to the mid-dorsal region the gray tint was diffused; but higher up in the dorsal, and in the cervical region only spots or patches were seen. Transverse incisions, about an inch apart, were made throughout the entire length of the cord. The lessening of the diameter of the cord in the lumbar and dorsal regions was made very manifest by these sections.

Microscopical examinations of specimens from both the spinal cord and brain were made for me by Dr. H. Formad. I have also examined for myself the microscopical appearances presented in different regions of both cord and brain. I will give you briefly the results of these examinations. The specimens were gradually hardened in alcohol. Transverse sections were made from the lumbar, dorsal and cervical portions of the cord. Marked sclerosis of both the posterior and lateral columns was found throughout. The sclerosis was not in absolutely continuous bands, but in irregular patches of varying size, which in many places had apparently coalesced. Comparing the cervical, dorsal, and lumbar regions the sclerotic condition was seen to be most intense in the latter; in the dorsal portion it was still very marked; but in the cervical it was not nearly so evident. In the lumbar, as well as in the dorsal portions of the cord, the central canal was completely obliterated by embryonic cells. The cervical canal was comparatively free. All stages of the sclerotic process could be seen in different sections, and in different zones of the same section. The most marked alterations were present in the lumbar region; here, in the posterior and lateral columns the nerve tubes had very largely disappeared. The sclerosis seemed to gradually decrease in intensity,

and in extent of distribution of the patches, as the examinations were made higher and higher in the cord. Some increase of the neuroglia was determined even in the anterior columns, but in these the pathological change was not decided or extensive.

Numerous sections of the medulla oblongata, pons varolii, crura cerebri, basal ganglia and white matter of the hemispheres were made and carefully examined. The medulla oblongata showed decided areas of sclerosis, predominating posteriorly and gradually losing in intensity towards the anterior columns, where the nerve elements were well preserved. Both pons and crura also showed increase of the neuroglia, well defined foci of sclerosis being easily made out. The sections from the optic thalami also revealed sclerosed districts of a decided character; while those from the white matter of the hemispheres showed only a slight sclerosis. Sections from the corpora striata did not afford evidence of sclerotic disease.

Besides the appearances of a chronic sclerosis which I have just endeavored to describe, the microscope also revealed evidences of a recent acute or subacute affection of the cord and brain; congested blood vessels and what appeared to be miliary abscesses along their course were observed in all directions. In the brain amyloid degeneration of the capillaries was marked; the perivascular spaces were obliterated.

Such, gentleman, is, in brief, the history of the closing days, and of the post mortem and microscopical examinations of this most interesting case. If you will recall the symptoms of chronic disease of the spinal cord manifested by this patient, which were studied at length in the previous lecture, your attention will be attracted, in the light of the *post mortem* revelations, to some points worthy of special note. The spinal phenomena which were most prominent—on superficial observation, at least—were those of motor irritation, tension and spasm of the muscles of both the upper and lower extremities, especially of the latter, and an almost characteristic spastic gait. Impairment of sensibility, and ataxia both of legs and arms, were present, but did not claim the same notice that the spasmodic symptoms received. The sclerosis was, however, on the whole, more intense in the posterior columns than in the lateral, although very decided in both. Probably the sensory and ataxic symptoms were in large measure, masked by the spastic manifestations.

It is not altogether unusual for the symptoms of locomotor ataxia or posterior sclerosis to be mixed up with those of disseminated sclerosis. One of the cases particularly mentioned in Charcot's lectures on diseases of the nervous system presented this combination. The patient, a young woman, besides the symptoms of multilocular sclerosis, such as rhythmical tremor, amblyopia, nystagmus, slowness of speech, tremulation of the tongue, hallucinations of sight and hearing, emotional disturbances, pseudo-tetanic rigidity of the lower extremities, etc., also exhibited some of the phenomena of true posterior sclerosis, namely, marked ataxia, diminution of tactual sensibility, violent paroxysms of fulgurant pains, and a painful girdling sensation. In addition to this case, several others are specially

referred to by Charcot—one, a case of Paget's, recorded by Cruveilhier in his "Atlas;" one a woman who succumbed in Charcot's wards; two others quoted from Friedrich; and, finally, a case briefly summarized by Bourneville, as follows: Josephine Leg—æt. 46 years, a silk winder, has been suffering for two years. She presented the following ataxic symptoms: Difficulty of walking with closed eyes; notion of position, with respect to lower limbs, greatly lost, frequent fulgurant pains in the knees and legs; girdle pains. Along with those symptoms were noted considerable paralytic enfeeblement of the lower limbs; preservation of the different modes of sensibility in the upper and lower extremities; visual integrity. This woman succumbed to pyelocystitis, complicated with sacral eschars. *Autopsy:* Sclerosed patches on the left external motor oculi and on the optic nerves; sclerosed patches on the pons varolii, the right superior crus cerebelli, etc.; sclerosed patches on the surface of the lateral ventricles, in the interior of the centrum ovale, on the anterior face of the bulbus vachidicus, and in the fourth ventricle. In the spinal cord was found, 1st, a sclerosed patch, four inches long, occupying the left posterior column; 2d, another of less length and breadth on the right posterior column; 3d, beneath it, another rather circumscribed patch occupying both posterior columns; and 4th, on the antero-lateral surfaces of the cord, many small patches of sclerosis. (*Lectures on Diseases of the Nervous System*, by Professor J. M. Charcot, translated by George Sigerson, M.D., M.Ch., etc.)

Disseminated sclerosis being, indeed, what Charcot has well called a "polymorphous" affection, no good reason exists why its symptoms might not be those indicating almost any portion of the cerebro-spinal axis.

The patient did not begin to suffer with pains in the joints and muscles of the lower extremities until about three months before her death; but after this they constituted a prominent and distressing symptom. In locomotor ataxia, as you well know, lancinating, electric-like pains are among the earliest manifestations. Charcot holds that we only have the lancinating pains in locomotor ataxia, when the sclerosis attacks the external bands of the posterior columns, those which contain the internal root-fibres. In multiple sclerosis also these pains probably occur when these bands are invaded, which may not have taken place until late in our case.

As was anticipated, her peculiarities of speech, and her psychical symptoms, indicated bulbar and cerebral extensions of the disease. The fact of the lesions not being limited to the cord, would account for the tremor in the view of those who hold that it is necessary for the production of this symptom for the parts above the medulla oblongata to be implicated.

A few words remain to be said in regard to the closing scenes in this case. In the first place, as the end approached, all the chronic symptoms which I have detailed, became worse and worse. Soon she became helplessly bedridden. Paralysis of bladder and bowels, with bed-sores, were developed. Most prominently, however, stood forth the extreme pains which she suffered in the muscles and joints of the lower extremities and the marked inflammatory con-

dition of the latter. High fever also was present. In spinal sclerosis, but more particularly in *tabes dorsalis* or locomotor ataxia, severe joint affections are not unusual, and have been described by various writers. These arthropathies, however, are usually developed early. In our case they came on in the very last stages of the disease. Fever, swelling and pain are usually absent; in our patient they were prominent manifestations. I believe, however, that, in some way, these joint disorders were connected with the spinal lesions. Both the macroscopic and microscopic examinations of the cord indicated that an acute or subacute myelitic process had been imposed upon the chronic sclerosis, which might account for the febrile, and probably for the other manifestations towards the last. The beginning ulceration of the small intestine is not to be overlooked, particularly when it is remembered that cases of spinal sclerosis frequently succumb to intercurrent diseases, such as typhoid, or typhus fever, etc.

ORIGINAL ARTICLES.

COMPLETE DISLOCATION OF THE RADIUS AND ULNA OUTWARD TO THE RADIAL SIDE.

BY
HARRIS B. OSBORNE, M.D., SHERMAN, N. Y.

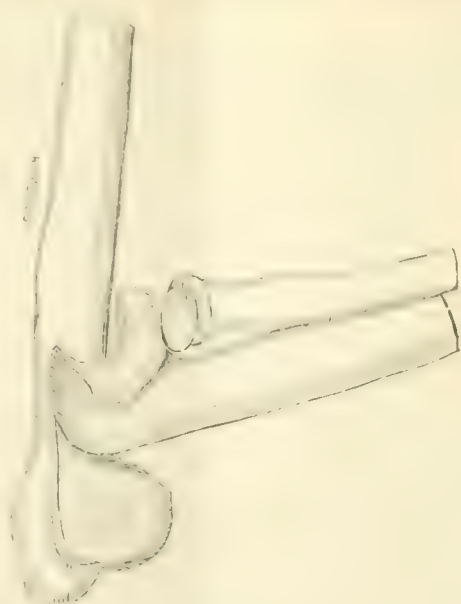
On September 30th, 1879, Martin Harmon, æt. 40, a farmer, residing at Volusia, Chautauqua Co., New York, was gathering apples from the top of a tall tree, and standing near the top of the second section of a patent extension ladder, and near its junction with the third and last section. In attempting to ascend another round with the right arm extended and through the rounds of the upper section, it gave way and folded up, firmly grasping his forearm between the rounds of the two upper sections. The ladder partially turning, he was twisted off the rounds and suspended by the right arm, where, after a short suspension, he dropped to the ground and was taken to the house.

I saw him in company with my partner, Dr. Edward Ames, some three hours after the accident.



And on examination found the forearm flexed at nearly a right angle with the humerus, and pronated. The radius and ulna were completely dislocated, and lay on the outer aspect of the humerus at least two

inches above the external condyle as here represented. The appearance as given in this rough pencil sketch does not fully give the appearance of



the lesion, yet it will give the reader something of the appearance of the lower end of the humerus protruding down into the soft tissues. The second sketch gives the relative position of the bones of the joint when first seen.

The reduction was accomplished by flexing the forearm and using extension at the bend of the elbow, and pronating the arm until brought down well to position, and then supinating the forearm while my partner applied counter extension on the humerus. Immediate relief followed reduction, with perfect motion. The arm was dressed by placing a well-padded rectangular "straw-board" splint extending from the axilla to finger-tips, with fore-arm semi-pronated; passive motion, with friction was begun on the third day, and continued for three weeks, when all dressings were removed. The joint, though still weak, is possessed of perfect mobility. And as there must have been laceration of the annular ligament, as well as the anconeus, I consider the result remarkable.

In looking up the literature on this particular luxation, I find on page 601, *Fractures and Dislocations*, by Frank H. Hamilton, M.D., &c., the following, which I quote:—"The large majority of outward dislocations of the forearm are incomplete indeed, only nine examples of a complete dislocation have been collected by Denucé, including two seen by himself. Malgaigne has since added two more, making in all eleven cases. All these examples have occurred in the practice of French surgeons. So far as I am able to discover, no American or English surgeon has ever reported a single example." On page 416 of *Erichsen's Surgery*, I find the following, viz.:—"The lateral dislocation of the bones of the fore-arm is almost invariably incomplete. Either the head of the radius hitching against the internal condyle or the ulna coming into contact with the external one.

Complete lateral dislocation of the bones of the fore-arm is excessively rare, the only instance with which I am acquainted is a luxation outwards, reported by Nelaton, of which he has given a wood cut."

Thus only twelve cases of this rare luxation have been reported, so far as my limited search goes, and for this reason I report this case that it may be placed on record.

SUMMARY OF ONE HUNDRED AND TWENTY-SEVEN CASES OF FRACTURED PATELLA.

BY
FRANK H HAMILTON, M.D.
Surgeon to Bellevue Hospital.

Total Number of Cases.—127.

Sex.—Males, 99; Females, 28.

Age.—Ten years and under, one case. This is the case (52) of the lad five years old in whom from a direct blow, a small piece of the margin of the patella was broken off.

From ten years, including twenty, six cases; of which 1 (118) was 16 years old—a boy—the fracture being oblique and caused by a direct blow; 1, (Case 19) was 19 years old—the fracture was transverse and was caused by a direct blow. In this case the ligament subsequently gave way completely on the outside, and a new patella formed in the very much elongated ligament on the inner side. The remaining four cases were at the age of 20 years; all were transverse—two are known to have been caused by muscular action—one by direct force, and in one the cause is not stated.

Until the twentieth year of life then, there were only three fractures, and these were all caused by direct blows. Up to this period, muscular action seems to take little or no part in the production of these fractures.

From twenty years, including thirty, 48 cases. From thirty years, including forty, 33 cases. From forty years, including fifty, 22 cases. From fifty years, including sixty, 8 cases. From sixty years including seventy, 4 cases. From seventy years, including eighty, 1 case. In this one case, the patient, a woman, was 80 years old.

In all the six cases included in the last two decades—that is from sixty years, including eighty, four are known to have been caused by direct blows, and the remaining case, Bridget Callaghan, 80 years old, fell fifteen feet, and it is fair to presume that the fracture was caused by a direct blow.

It would seem then, that after the sixtieth year, muscular action seldom causes these fractures. The largest number of cases having occurred between the twentieth and fortieth years of life. The total in these periods being 103, out of 122 whose ages are known; or, if we include the three at the twentieth year, 106 out of 122 cases.

Right or Left Limb.—Of 134 in which this fact is recorded, ninety-three were in the left limb, and forty-one in the right.

Character of the Fracture.—Of the whole number, all were simple except eleven; and of these nine were comminuted, and two were both compound and comminuted. Of the comminuted fractures,

cases 61 and 94; were accompanied with fractures of the thigh also—one died of shock on the fourth day, and one after amputation, rendered necessary by gangrene.

Direction of the Fracture.—The fractures were transverse in 106 cases—not including two which were transverse and vertical (comminuted)—Of these 106 cases, twenty-two are recorded as below the middle of the patella; sixteen at the middle and seven above the middle.

Cause of the Fracture.—Twenty-five are known to have been the result of muscular force alone; and fifty-eight are recorded as having received blows upon, or as having fallen upon the patellæ, and have been placed in the list of those caused by direct blows. In forty-three cases nothing is said as to the cause.

Of the transverse fractures it will be noticed that a majority of those occurring below the middle are ascribed to muscular action,—that is twelve out of twenty in which the cause is given. Of four oblique fractures, three are known to have been from direct force; and all of the comminuted fractures except case 127, were from direct blows, as were also the two compound fractures.

Active Synovitis and Bursitis.—I infer that active synovitis ensued in at least thirty-four cases, and probably in many others. Inflammation of the bursa the patella is mentioned once. Probably in most cases the bursa is torn open as the patella ascends, and communicates freely with the joint, so that bursitis could not be recognized as a distinct phenomenon.

Blood in the Joint, etc.—In case 90, a compound fracture, the presence of blood in the joint was actually demonstrated. Probably it was present in many other cases, but the fact could not be proven. Pretty extensive subcutaneous *ecchymosis* on the sides of the knee and in the ham were very frequently observed.

Treatment.—It will be impossible to summarize the treatment. Nearly all of the recognized plans of treatment were adopted, but in a majority of cases the same plan of treatment was not continued from the beginning to the close; and it would be difficult in most cases to say to which particular method the result must be ascribed. Of the specific forms of apparatus, there are mentioned, Lonsdale's, Wyeth's, Turner's, Mott's, Malgaigne's hooks, Sir Astley Cooper's, both of my own methods, plaster-of-Paris, and other forms of immovable dressings, the "lock strap," "wooden fingers," pulley and weights, crescentic pads, and figure-of-8 bandages, also elastic bands, rollers, etc. Most of the patients have been kept in the recumbent posture, with the foot elevated, but some have been allowed to walk about on crutches, especially when either of the forms of immovable apparatus have been employed.

Results.—We now approach one of the most important parts of our subject, and, fortunately, the records are sufficiently accurate and full here to enable us to make valuable conclusions.

It is stated distinctly in 84 cases that the union is fibrous. The bond of union does not permit the fragments to be moved upon each other, and therefore may be constituted of bone, in case 11, and I believe in three or four other cases.

In cases 22, 23 and 64 no union ever occurred

The length of the bond of union is given as $\frac{1}{4}$ of an inch in 16 cases; $\frac{1}{2}$ in 33 cases; $\frac{3}{4}$ in 13 cases; 1 inch in 3 cases; $1\frac{1}{2}$ in 2 cases; 2 in three cases; $3\frac{1}{2}$ in 1 case; 4 in 1 case, and 5 in 1 case. The four last cases, or those in which the separation exceeds $1\frac{1}{2}$ inches, are respectively cases 22, 23, 54, and 111.

The above records, it will be understood, do not include cases of rupture subsequent to union, but only the results of the first treatment. We shall refer to the results after refracture or rupture of the bond of union hereafter.

It is not to be supposed that these estimates of the length of the bond of union are absolutely accurate. Probably the length of the ligament was generally a little longer than is stated, but the records are sufficiently accurate for our purposes. All but 8 are united with a ligament of one inch or less in length, and the largest number have a ligament of only half an inch.

Anchylolosis.—More or less complete has existed in nearly all of the cases when the limb was first removed from the apparatus; being most complete, as a rule, in those cases in which the joint has been kept the longest in the dressings, without the use of passive motion.

In no case has force been resorted to to overcome this anchylolosis; but it has gradually disappeared under passive and active use of the limb within a year or two.

Rupture of the New Ligament.—The new ligament has given way more or less completely in 27 cases. Possibly we may have included in this number one or two which were never held well in position, such as cases 9 and 32, in which the inner portion of the ligament alone is elongated. This unilateral elongation occurred three times on the inner side and once on the outer. Of the entire number, 5 were gradual, the elongation commencing soon after the patients began to walk; and 18 occurred within ten weeks after the receipt of the original injury, generally on the seventh or eighth week, when the patient in his first attempt to walk has slipped, and the limb has been suddenly bent. After the eighth week there are 4 cases at 3 months, 3 at 5 months, and 1 at 2 years and 4 months (case 18). Case 21 is put down as re-fractured after 4 years; but the history of the case is doubtful.

I think in the light of this experience it may be said that after the fifth month there is no more danger to the injured limb than to the sound one.

Other Displacements of Fragments.—The lower fragment was found slightly tilted forwards in case 31; and the lower fragment overlapped the upper a little in case 9. The upper fragment was tilted over by the elongation of the inner portion of the ligament in 3 cases, and in opposite direction by the giving away of the outer portion in 1 case. In case 19 a new patella has formed in the much elongated ligament.

Repetition of the Fracture in the Opposite Leg.—Cases 6, 45, 68, 85, and 124 belong to this class. Perhaps also 59; or it may have been a case of re-fracture. These latter accidents have evidently resulted from the fact that the sound limb has been compelled to receive alone the resistance in efforts to prevent a fall.

Hypertrophy in Fragments.—This has been espec-

ially noticed in 9 cases; namely, twice in the upper fragment alone, once in the lower and six times in both. It is probable that its occurrence is much more frequent than this record implies.

Period of time which elapsed before the functions of the limb were sufficiently restored to resume labor.—Of the primary accidents, that is of those in which there was no subsequent rupture of the union, I have been permitted to examine 23 cases, at periods of time ranging from four months to twenty-nine years. Only four of these are said to have acquired perfect, or nearly perfect, use of the limb in a less period than two years, although in general they have resumed work within about one year. The cause of this inability to labor has almost invariably been the lack of the necessary freedom of motion in the knee-joint—a partial anchylolosis.

It is remarkable, however, that in case 23, a British soldier, there being no union and a separation of the fragments to the extent of 5 inches, he was able to walk well at the end of 29 years, when I saw him. Case 22 was seen after four years with a separation of four inches, and case 54 was seen after seven years, and both walked badly.

Results in cases of re-fracture or rupture of the bond of union—27 cases.—Of 15 cases in which the ligament gave way within a period of three months from the time of the original accident, that is, soon after the union had been effected, 12 have terminated very satisfactorily. Under a renewal of the treatment the fragments have united with a short ligament. Case 56, re-fractured twice, and cases 40 and 47 were not so fortunate.

I do not think that in any case where the re-fracture occurred later than this was a permanent reunion effected.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

CHRONIC MENINGITIS AND INSANITY—TRANSPPOSITION OF VISCERA.

Nathan R., æt. 51. Admitted July 24th. Family history negative. The patient has had pneumonia and pleurisy, otherwise has been a healthy man. About five years ago he lost his property, and since then he has never been himself. He has been in an insane asylum for several months. His nights have been sleepless, and in order to secure sleep has taken more or less morphine; he was never violent, only talked about business, etc. After admission to the hospital he was examined and pronounced insane. He was not violent, but very restless; took his food well, and except for his emaciation seemed in good health in all respects, except his sanity. As he was constantly getting out of bed he required restraint.

July 26.—This morning he had a convulsion, the convulsive movements being confined to both extremities. He gradually became semi-comatose with convulsive movements at intervals. The respiration was irregular and somewhat blowing. The pupils were normal, and responded to light. Reflex action

was normal. The pulse was fluttering and irregular. He passed his urine and faeces in bed. The surface was cold and clammy. Under the use of hypodermic injections of whiskey the pulse became stronger and more regular. Soon after he became violent at times, and breathed with a loud noise. In the intervals he would remain without breathing for twenty or thirty seconds by the watch. The pulse was still irregular and fluttering; the pupils were normal; there was no paralysis or loss of reflex excitability. On physical examination the lungs were found to be normal; the apex of the heart struck the sixth intercostal space about one to about one and a half inches below the right nipple; there was no impulse on the left side. On the right side, at the apex and base, the heart-sounds were normal; on the left side they are very indistinct. Percussion on the right side gives dulness over a space corresponding to the usual heart-area, while on the left side pulmonary resonance existed over the usual seat of precordial dulness. Over the usual seat of the liver, percussion gave dulness, with the exception of a small space in the axillary line. On the left side an area of dulness was found corresponding in size and shape to the usual outline of liver dulness.

The patient remained in the condition just described for some three hours, half an ounce of whiskey and one ounce of milk being given to him every half hour. By noon he was apparently as well as on the day of his admission. In the evening he had another convulsion similar to that of the morning, the respiration again became slow, with intervals of suspended respiration lasting half a minute. The pulse was irregular and wavy, the extremities became cold. The urine was passed in bed, there was no paralysis. The abdominal aorta pulsated violently on the right side. The movements were very violent. Whiskey was given hypodermically and by the mouth; but the patient gradually sank and died at 11 P.M.

Autopsy.—Body showed marked emaciation.

Brain.—Intensely congested and very cedematous, pia-mater was thickened and opaque in spots. Otherwise the encephalon was normal.

Lungs were normal.

Heart was placed on the right side corresponding to the position usually occupied by that organ on the left. The arch of the aorta passed backward at the right side of the spine, and continued at that side till its division into the common iliacs. The right subclavian and the right carotid arose directly from the arch, the innominate artery passing to the left and giving off the left carotid and subclavian.

The *liver* was in the left hypochondrium.

The *spleen* was in the right hypochondrium.

The *stomach* was principally on the right side, the splenic end being situated in the right hypochondrium. The pyloric end had two constrictions.

Intestines.—The sigmoid flexure was in the right inguinal region, and the cæcum with the appendix vermiformis was in the left iliac region.

The *kidneys* were normal.

The right spermatic vein joined the right renal, and the left the vena cava.

SOCIETY PROCEEDINGS.

MEETING OF N. Y. ACADEMY OF MEDICINE, NOV. 6TH, 1879.

Reported for THE HOSPITAL GAZETTE.

The meeting was called to order at 8 P.M., the President, Dr. Fordyce Barker in the chair, the minutes of the last meeting were read by the Secretary, Dr. Hanks, and approved. The Librarian, Dr. Johnson, reported that since the last meeting he had received 509 bound volumes, 158 unbound volumes, 442 pamphlets, 11 maps, and 3 fac-simile letters.

The report of the Corresponding Secretary was received. He announced the death of Dr. Debazie, the distinguished authority on legal medicine, and of Dr. Callender, surgeon, of St. Bartholomew's Hospital, London.

The report of the Committee on the admission of new members was read by its Chairman, Dr. Janes. They recommended for admission to fellowship in the Academy—Drs. J. G. Hitchcock, John Swazey, J. L. Perry, R. P. Lincoln, W. J. Morton, Francis Huestis, J. Van Houghton. The ballot on these candidates was proceeded with during the reading of Dr. Jacobi's paper, and they were all elected.

The paper of the evening,

"ON THE CHILDREN'S DEPARTMENT OF MT. SINAI HOSPITAL," AND A "DISCUSSION OF SOME DISEASES OF CHILDREN,"

was then read by its author, Dr. A. Jacobi.

The author said that it had often appeared to him that the public hospitals and the medical men of this city were greater strangers to each other than they ought to be. This might be overcome by the publication of reports and by lectures by the attendant physician or surgeon, but at best but imperfectly. It was his object to do something toward removing this state of affairs that he would bring to the notice of the members this evening some cases, comparatively few in number, but all possessing something of interest which had occurred in one of the wards of Mt. Sinai hospital. Last March one of the wards had been set apart as a children's ward, and entrusted to him as a permanent service. Children's wards were much too few, and permanent service still more so for him to lose the opportunity thus afforded for an accurate study of cases.

COMPLICATED ADENITIS.

CASE I.—V. B., aged 12, was admitted March 18th. Years ago she had had scarlet fever, since which there had been a discharge from the right ear and perforation of the drum. At times this discharge ceased, and at such periods the general symptoms became much aggravated. For years past she had had pain in chest, and cough with little expectoration. She was admitted on account of a pain in the throat which proved to be caused by an adenitis. Four days later the inflamed gland had suppurated, and the abscess was opened and a drainage-tube inserted, to be replaced after a few days by lint. A physical examination revealed chronic pneumonia, hypertrophy of the heart, and enlarged spleen. The interest of this case lay in

the fact that as a rule the diseases of infants and children were uncomplicated, and hence the diagnosis could be more easily reached than in adults; but this child had a large spleen and chronic pneumonia causing enlargement of the heart and disordered digestion.

SIMULTANEOUS RHEUMATISM, HEART DISEASE, AND CHOREA MINOR.

CASE II.—P. B., age 10, admitted March 12th. Had had measles twice and last winter had suffered from rheumatism. On admission the respiration was 24, pulse 96, temperature 100. The child had a mitral regurgitant murmur and chorea minor.

March 26th.—There was no pain and the murmur was diminished.

April 3d.—There was pain in the wrist and the murmur was increased. There was also pain in the pericardial region which was relieved by the application of ice.

April 16th.—No pain, murmur slight. As in many cases of rheumatism occurring in children the pain and all the subjective symptoms were slight; but the rheumatism, endocarditis, and chorea minor broke out at the same time and not, as usually happens, first the rheumatism, secondly the endocarditis, and lastly the chorea minor. The treatment consisted of the salicylate of soda and occasionally digitalis and morphine.

Most of the seven cases of typhoid fever shared to a greater or less extent the symptoms usually met with in children. In some there was high temperature, in some there was roseola; in others the spleen was enlarged, while in still others there was no bronchitis, but when it was present there was a marked tendency to broncho-pneumonia and not to splenization as in the adult. The high temperature of typhoid fever in children does not affect the system as it does in other or inflammatory diseases.

TYPHOID FEVER COMPLICATED WITH CATAPLESY.

CASE III. This case was remarkable for the catalepsy occurring at such an early age. F. C., age 3, was admitted September 4th. For some weeks before admission she had had headache. On admission the temperature was $103\frac{3}{4}^{\circ}$, the tongue was red at the edges, the spleen was enlarged, there were tympanites and some diarrhoea. For the next few days the fever continued, the cough which had been slight became more and more marked, and on the 10th of September it was recognized that she had whooping-cough. By the 23d of September the fever had subsided but there was spasm of the eyelids and râles with dulness on percussion were noticed at the right apex.

Sept. 25th.—The patient had a good deal of twitching of the lids and the eyes were turned up. It was also noticed that when the arm or leg was raised it remained in the position in which it was placed, in short that the child had catalepsy; there was still some voluntary action but the muscular action was very deficient. It passed large quantities of urine of a sp. gr. 1020; the extremities were cold and the child was apathetic.

Sept. 27th.—It seemed stronger but the twitching of the eyelids remained. Sensibility was lost; there were complete anæsthesia and analgesia; tendon

reflex was diminished. The appetite was ravenous.

Oct. 1st.—The cataleptic position of the arm was sustained one minute; the spasm of the eyelids had ceased.

Oct. 20th.—The cataleptic symptoms had disappeared, the urine was less copious and the appetite less ravenous.

In connection with the subject of typhoid fever, stress was to be laid on the fact that many symptoms do not appear and are not to be expected in children, and it is remarkable that the cases as they are met with in this country, are quite different from what they are described to be in European textbooks, and if we were to be guided by them we should be unable to make a diagnosis. This is especially the case with diarrhoea. The author showed a specimen taken from a child that had died in one of his wards in Bellevue Hospital, of perforation of the intestine, which, beside the perforation, showed numerous ulcerations which would probably have gone on to perforations if life had been sufficiently long sustained, and yet the patient had not at any time had any loose passages. This should impress upon us the importance of looking after the bowels and regulating the diet even in cases in which there were no symptoms to direct attention to the bowels.

UNILATERAL TONSILLITIS.

CASE IV.—Matilda W., age 8, was admitted with inflammation of the right tonsil. Under the use of the chlorate of potassa and the muriated tincture of iron she promptly improved, but in a few days the disease returned and it was then noticed that there was a light whitish film on it. This was removed and a spray of a solution of nitrate of silver applied of the strength of 1 to 500. It was to be noticed in connection with this case that unilateral inflammation of the tonsil or pharynx was rare, except from local causes, and when present should arouse a suspicion as to the existence of a contagious disease and especially diphtheria.

REPEATED TYPHLITIS AND PERITYPHLITIS.

CASE V.—Lena H., age 8, was admitted March 10th; she had had colitis in 1878. A few weeks previous to her admission she had complained of pain in the abdomen and had vomited about half an hour after meals. The bowels were constipated for four to seven days at a time. Sometimes she had a cough and sometimes she had vomiting of coffee-ground matter and she was said to have vomited blood and afterwards to have had a discharge of blood from the vagina. As she had had no movement of the bowels since her admission.

March 14th.—Half a drop of croton oil was given and produced evacuations.

March 16th.—She vomited once during the night and had one liquid stool.

She was ordered $\frac{1}{4}$ gr. of corrosive sublimate hypodermically, and put upon iodide of potassium. The constipation returned and continued from time to time after this, and she was ordered considerable quantities of castor oil with but little effect, and the movement of the bowels so caused, seemed to bring on attacks of typhlitis. She was finally discharged

from the hospital much improved, but with instructions to receive an enema every day.

In this case there had no doubt been a number of attacks of typhlitis and perityphlitis, and parts of coils of the intestine could at times be seen and felt lying against the abdominal wall, and it had been to prevent a repetition of these attacks that she had been ordered iodide of potassium and corrosive sublimate, the latter given hypodermically in order not to disturb the stomach. The castor oil had undoubtedly brought on an attack and the question as to the administration of cathartics in such cases was one which each physician must decide for himself in each particular case.

CONGENITAL LIPOMATA.

CASE VI.—M. C., age 3, admitted May 28th. When the child was born there had been noticed a swelling on both sides of the spine in the lumbar region which had remained stationary in size until about six months previous to admission when it had begun to increase. When admitted there was found a swelling on both sides of the spine in the lumbar region, apparently lobulated and elastic to the touch; the skin covering it was unaltered except that the veins were enlarged. There were also similar swellings of smaller size in the gluteal region and under the scapula.

June 3.—An incision was made down to the swelling in the lumbar region; no capsule was found but a considerable quantity of fat, part of which was removed. The operation was performed according to Lister's method and the wound dressed in the same way. After the operation the patient apparently did well and on the 8th of June the pulse, respiration and temperature were normal.

June 9.—A dysentery set in, for which opium and bismuth were given.

June 10.—The wound looked sloughy. The dysentery persisted and the wound grew worse and June 14th was sloughing and suppurating. As the edges gaped an attempt was made to bring them together with hare-lip pins; but the child continued to sink and died July 2d.

Hypertrophy of the adipose tissue to such an extent as to render the size of the limb enormous had been met with but was rare; the extremities also were sometimes increased in length, and with these exuberant growths there are generally also other anomalies. Sometimes instead of excessive there was deficient development. In all these cases of congenital growth the nature of the deposit depended upon the period of the development of the child at which they were formed. Both diffused and circumscribed lipomata are found where the adipose tissue is normally most abundant.

CRANIAL SARCOMA.

CASE VII.—Thomas C., age 33. The father was a drunkard and had died of erysipelas. The oldest child the mother said had died of a tumor under the arm. Thomas' head had always been large and it was supposed to have water on the brain. It was weak; walked when two years old; at three said papa and mamma and that was its whole vocabulary. Six months ago a tumor was noticed in the right parietal region. When admitted, March 3d, it was restless and irritable, seemed to desire to be con-

stantly carried. The heart and lungs were normal. It appeared idiotic, and when contented made a humming noise. During the first week the tumor increased 25% in size; an exploring needle brought only a little blood.

March 11.—The tumor was removed and found to cover an opening into the cranial cavity from which about four ounces of a milk-and-coffee colored fluid escaped. There was only slight hemorrhage and the operation was followed by slight facial paralysis and ptosis on the right side.

March 12.—The dressings were changed and the patient was comatose for a few minutes.

March 13.—He vomited; the pupils were dilated.

March 14.—Chloroform was administered and part of the intracranial tumor was removed together with some of the adjacent bone. When the tumor was cleansed it was found that the dura-mater was white and thickened, and showed beautifully the two layers of which it consists.

March 17.—A small piece of bone came away and the child had a chill.

March 18.—The respiration became rapid, the extremities cold, and the child died. A microscopic examination of the tumor showed that it was a sarcoma consisting of spindle-shaped cells; the same structure was found in the bone.

Malignant tumors were more malignant the more they consisted of cells; hence the malignant tumors had their only justification, as it were, in that stage of the development in which the organs consisted of cells. Cohnheim says, "all neoplasms are preformed in the embryo."

Congenital growths were found in all organs; in exemplifications thereof the author cited a case from private practice.

CONGENITAL CARCINOMA OF THE KIDNEY, LIVER, AND SUPRA-RENAL CAPSULE.

CASE VIII.—A woman 24 years of age had been married five years and five months; had three children, one aged four years and four months, another three years, and a baby. She had had typhoid fever with a number of relapses. She had menstruated for the last time, January 7th, after which she became pregnant.

Sept. 10.—The movements of the child in utero became less noticeable, and Sept. 20th, ceased altogether. Her temperature rose to 102.3°, and she suffered considerable pain; it was therefore concluded to empty the uterus, as metritis was feared. There were no labor pains. The presentation was found to be transverse. A foot was seized and readily brought down, but the tissues were so soft that it was apprehended that the thigh would be severed from the body. The other foot was also seized and brought down, after which the body was delivered with considerable difficulty, speedily followed by the head. Although having died before full term, the child weighed nine or ten pounds. The left kidney was found to be twenty times as large as the right, and contained infiltrations of various shapes and sizes, similar carcinomatous deposits were found in the liver and suprarenal capsule. The author presented specimens of the two latter organs, but did not show

the kidney, as congenital carcinomatous deposits were common enough, but similar neoplasms in the former were rare.

The president, Dr. Barker, endorsed the statements of Dr. Jacobi as to the duties to the profession by those employed in public institutions. He also referred to the fact that children's diseases form a large part of the general physician's practice, and being uncomplicated as a rule, present excellent opportunities for clinical study.

The paper by Dr. J. Lewis Smith on "Acute Diseases of the Respiratory Organs, as observed in the N. Y. Infant Asylum during the Present Year," which had been announced for this evening, was postponed till some other time at the request of the author.

It was moved and carried that the discussion on Dr. Jacobi's paper be postponed till such time as the president see fit.

The president announced that he had received twenty-five dollars for books for the library from a friend of Dr. Ellsworth Elliott.

The Academy then adjourned

SELECTIONS FROM JOURNALS.

EMPHYSEMA IN AN INFANT AGED THIRTEEN MONTHS, CURED BY ASPIRATION By JOSEPH HUNT, M. D. LOND.

The following case will serve as an addition to Dr. Barlow's list in *The Lancet* (Dec. 21st, 1878).

Florence B—, aged thirteen months, was brought to my out-patient room on Nov. 26th, suffering from dyspnoea, emaciation, cough, and excessive night-sweats, after an illness of a month's duration. On examination, the right side was bulged, and measured half an inch more than the left, while expansion was very deficient; vocal fremitus present, but weakened; percussion dull all over, dulness scarcely extending over the middle line; breath-sounds weak; no displacement of organs; no oedema; respiration 60; pulse almost imperceptible; weight 15¼ lb.; temperature (rectal, 12 mid-day) 100.4°. The patient was immediately aspirated, and nearly five ounces of very thick sweet pus withdrawn. The respiration and pulse both improved during the operation, and the chest became resonant throughout almost its whole extent. The right side of the chest was firmly strapped, and the patient was ordered iron wine and cod-liver-oil, of each half a drachm three times a day, and some grey powder.

Although, contrary to advice, the child remained an out-patient, and had to be carried some distance, in very inclement weather, three times a week, she progressed most satisfactorily. There was no fresh secretion of pus, as was proved by the introduction of the aspirator needle twice—on Nov. 29th and Dec. 6th; and she was discharged on Dec. 22nd in the following condition: Temperature normal. Gaining weight. Night-sweats entirely ceased. Appearing, as the mother said, "quite well." Chest: Good resonance to nipple; behind, absolute dulness commenced at the tenth rib, but there was deficient resonance above this, and the note up to the middle

of the scapula was not so clear as on the other side; breath-sounds nearly as loud as on the opposite side. The right side now measured about a quarter of an inch less than the left, and expansion was still slightly deficient.—*Lancet*.

SALICYLIC ACID IN THE TREATMENT OF DIABETES.

Dr. Schaetzke publishes in the *Berliner Klin. Wochenschrift* for June 2nd, 1879, the history of three cases of diabetes successfully treated by salicylic acid. The first case was that of a lady aged 50, who had for eighteen months been under treatment for chronic gastric catarrh. Her father, sister, and husband had died of tuberculosis. When she was seen by the author, he at once suspected diabetes from the excessive thirst, polyuria, caries of the teeth, etc. The urine was examined, and found to contain sugar; the specific gravity was 1038. The patient was treated with salicylic acid, 3 grammes (45½ grains) being ordered to be taken three times daily for three days. On the first day, however, she felt giddy and had nausea. On the second day, she vomited once; her hearing was affected, and her gait became unsteady. The dose was, therefore, from nine grammes daily to three grammes. Owing to her intolerance of salicylic acid, Herr Schaetzke sent her to Carlsbad. Upon her arrival there, the urine was found to be perfectly free from sugar, and remained thus both during her cure and afterwards. The second case was that of a man aged 58, who probably had been suffering from diabetes for the last two years. The urine contained a considerable percentage of sugar. As the patient could not be prevailed upon to go to Carlsbad, he drank the waters at home, but without much benefit. Herr Schaetzke then again resolved to try the salicylic acid treatment, beginning, as in the first case, with three grammes three times a day. The patient also evinced great intolerance of the drug. It was, however, continued for two weeks, in doses of three grammes daily during the first week and two grammes during the second week, when the sugar disappeared from the urine and did not reappear. The other case was that of a girl aged 26, who had been suffering from colic for years. She was treated in the same way as the two other patients, but was obliged to discontinue the treatment after the first four days, owing to her intolerance of the drug. A week later, another attempt was made with a dose of two grammes daily; this was continued for a fortnight, when the urine remained free from sugar. It is curious that in every one of these cases the patient should have been so intolerant of the salicylic acid. Could this phenomenon be in any way connected with their disease? and, if so, in what way? A series of three cases can hardly be regarded as sufficient for establishing the reputation of salicylic acid as a cure for diabetes; but the subject is worthy of being more thoroughly investigated.—*Brit. Med. Jour.*

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
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
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NEW YORK, SATURDAY, NOVEMBER 29TH, 1879.

EDITORIAL.

ONE MORE.

The number of medical colleges in the State of New York is to be increased by a unit; "*the Homœopathic College of Physicians and Surgeons, MODERN SCHOOL*, of Buffalo," is to be its name. This prodigious name, so beautifully select in its parts, so conglomerate as an entirety, and so mysterious with its appendage, "*MODERN SCHOOL*," is explained most clearly in the prospectus of the projectors of the college, as follows:

"While we believe and purpose teaching our pupils that the law of similars is the true and scientific method of applying remedies to disease, we admit its limitation; for the system is still in its infancy and hence imperfect. Eventually it will doubtless be so perfected, that all curable diseases, and possi-

bly all diseases now considering *incurable*, will yield to its influence. Until remedies are proven and introduced to combat all morbid conditions satisfactorily, we deem it our prerogative and duty as *modern Homœopaths* to use, promulgate, and teach our pupils the manner of using those therapeutical agents which the experience of ages has proven remedial, and not infrequently indispensable, such as purgatives, vermifuges, astringents, sedatives, anodynes, soporifics and emetics, particularly in false membrane, croup, poisoning, etc."

According to the representative journals, this statement is to be taken as perfect, and to a study of it our readers are recommended. The homœopathic MODERN SCHOOL disciples have discovered that the law of similars is in its infancy, therefore imperfect. We always thought so, and are pleased to see the converts, though they come with such a grand prophecy as "Eventually * * * doubtless * * * ." The confession of present absurdity is the tangible thing, and we could hardly expect the "similars" to strike solid ground, without excusing their fall, trying to drop easy. Their hope serves them a good purpose, and as it offends none others, all parties should be satisfied. The regular MODERN SCHOOL disciples contribute nothing new to the joint stock of the new concern, but their regular reputations, induced to do so by positions, we imagine. It was quite needless for the projectors to use so much explanation; "Ye Great Hybrid" as a title, would have rendered prospectus and explanation unnecessary.

S. W. Wetmore, M.D., is Dean of the institution. This gentleman is a member of the Erie County Medical Society, was proposed for, but refused membership in the Erie Co. Homœopathic Society; now performs a double bare back act at the head of this new college. We hope to hear of some action being taken by the Erie Co. Medical Society in regard to his membership.

SPECIALISTS' ADVERTISEMENTS.

We are reminded by the Editorial Notices of our contemporaries that we received two hand-bills at different times lately, announcing that Dr. ——— would give a course of lectures on diseases of the skin, at one of our hospitals, free to practitioners and medical students; the second hand-bill had a request, "Please Notice," written upon it.

Upon examining the matter, we ascertained that the aforesaid Dr., was not connected with any of our colleges as a teacher; nor did his class have a permanence, we concluded that his apparently generous offer to dazzle the minds of his auditors, was principally designed as an advertisement of himself as a specialist. We declined therefore to inflict upon our

readers, as an item of news, the points of the hand-bill.

We devote sixteen pages to advertising and are open to solid inducements for insertion of such matter therein.

ABOUT BOOKS.

The Treatment of Diseases by the Hypodermic Method. A Manual of Hypodermic Medication, by R. W. Bartholow, M.A., M.D., LL.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia. Third Edition Enlarged. J. B. Lippincott & Co., Philadelphia, 1879, pp. 249.

Dr. Bartholow has done the profession a real favor in the preparation of this little work on hypodermic medication. The first edition appeared at the time when such a manual was greatly needed, and the author has since enlarged and partly rewritten it, carrying it through its second into this, its third edition. The work before us is certainly worthy of much commendation, and shows the result of considerable study and observation. The literature of the subject is well presented and credit given where it belongs. The first, second and third sections are devoted to the history, technology and general therapeutics of hypodermic medication. The remainder of the work, with the exception of sections on the Morphia Habit and its Treatment, Aquapuncture and Irritant Injections, is devoted to a study of the agents employed, as follows:

Morphia, atropia, morphia and atropia, duboisia, strychnia, conia, curara, nicotia, hydrocyanic acid, physostigma (eserine), pilocarpine, chloroform, chloral hydrat, caffein, apomorphia, ergotin, quinia, carbolic acid, mercury and arsenic.

To Mr. Charles Hunter, of London, he gives the credit of first demonstrating that "the physiological and therapeutical effects of medicines thus administered are procured through the agency of the blood and that 'localization' of the injection is not necessary." The author gives due credit to Dr. Alexander Wood, of Edinburgh, as the inventor of this method of administering medicines and of an instrument for that purpose, setting aside the claims for priority of Rynd, of Dublin, and Kurzak, of Vienna. The date of Dr. Wood's discovery is 1843. To Drs. Isaac Taylor and Washington of this city, however, seems to be due the credit, not mentioned in the first edition of this work, of having used practically the same method in some dispensary cases in 1839. They first made an incision into the skin and then with an Anel's syringe injected the solution into the subcutaneous tissue. If this be so, and we have the word of these gentlemen for it, the discovery was made here, and due credit should be given, as has been done by Dr. Bartholow. In this connection we are surprised to see no mention made of the little work by Michael Ward, of Manchester, England (1809), entitled

"Facts Establishing the Efficacy of the Opium Friction in Spasmodic and Febrile Diseases," etc. While saying nothing, of course, of the hypodermic method or syringe, it points out clearly the facts that opium by the skin and opium by the mouth have very different effects, the former being of great benefit, and, indeed, curative when the latter utterly fails. He makes the very points, in fact, in favor of opium by the skin, that were claimed for the hypodermic method some forty years later by Hunter. Dr. Fordyce Barker has the honor of being the first to use the true hypodermic syringe in America, one having been given him during his stay in Edinburgh in 1856 by Prof. Simpson.

The history of the discovery and rapid appreciation and spread of the hypodermic method are carefully traced and recorded by Dr. Bartholow.

At p. 22, the author calls attention to the fact that the proper term to use is "hypodermatic," but very justly concludes that any change in the term at this late date is impracticable. At pp. 25-33 the subject of the kinds of syringe and manner of injecting are fully considered. The author prefers his own which is made by Gemrig of Phila.; it is of pure silver, holds just thirty minims, has two gold needles of different sizes, with lancet-shaped points, and has an accurately fitting piston, the lower end of which is covered with a small metallic plate to insure as complete expulsion of fluid as is possible. He prefers to pour the solution into a minim glass, and then draw it into the syringe, which is graduated on the piston-rod. The needles are to be cleaned by means of a "rimmer." A cut of this instrument and attachment is given. He heartily condemns the cheap, hard rubber syringes, they being inaccurate, and easily gotten out of order. He makes the suggestion that after each time of using, a little water be drawn into the syringe, a small metal cap being screwed onto the thread that holds the needle when in place, and that the water thus drawn up be discharged through the needle before using, thus cleansing it.

Dr. Bartholow holds with Hunter and many others that in the majority of cases insertion of the drug at a point remote from the seat of pain is quite as effective as "localization" of the injection. He however declares in favor of "localization" of the injection, in sciatica, zoster, in chronic cases in which the sheath or trunk of the nerve have become altered and in local neuralgia due to alterations of nerve trunks, attributing their action in some measure at least to the irritation produced (p. 74). His declaration in favor of "localization" in the majority of cases differs somewhat from the views expressed in a paper read before the N. Y. Society of Neurology and Electrolgy in October, 1875. (*New York Medical Journal*, vol. 21, pp. 58, 59, 60.)

On the same page he gives decrease of tactile and pain sensibility after injection, as the reason for Eulenbergs belief in the greater efficacy of "localization," while he makes no mention of the experiments of Prof. De Renzi (*La Nuova Liguria Medica*, Feb. 20, 1873), on the increase of dermal sensibility, as measured by Weber's compasses, after injection; this hyperæsthesia becoming more marked with each injection. At p. 55, on the use of morphia in

mental disease, the conclusions of Dr. O. J. B. Wolff, based on the state of the arterial tension, are given and are apparently fully endorsed, while no mention is made of the equally valuable, and certainly more practical observations and conclusions of Maudsley (on Opium in the Treatment of Insanity—*Practitioner*, Jan., 1869), than whom there is probably no closer observer of therapeutic indications, in this class of diseases.

On p. 79, in speaking of the use of morphia in cardiac diseases, we see no reference to the valuable article of Dr. T. Clifford Albutt (*Practitioner*, vol. 3, p. 342). This paper attracted much attention at the time it was written, and did much to extend the use of morphia in these diseases.

At p. 85, no mention is made of the effect of morphine on the bladder, although this is spoken of further on, the study is incomplete without it. We believe, also, that those who have had the most to do with diseases of the urinary organs have found that opium combined with belladonna in the form of suppositories acts better in this class of cases than either or both drugs when given hypodermically.

The statement (p. 86) that "the pain of *dysmenorrhœa* can be promptly relieved by subcutaneous injection of morphia," is not, we think, borne out by facts. Such relief is sometimes not obtained, though atropia be combined with the morphine and both be given in large doses (one and two grains of the latter). In one case that we have in mind, relief was had only so long as the patient was deeply narcotized and asleep, the pain returning as soon as the patient awoke. Moreover, the term *dysmenorrhœa* covers a number of abnormal conditions, each having a separate or particular cause. In ovarian neuralgia, where these drugs would be supposed to act best, they often fail utterly.

The statement (p. 87): "Besides the complete and permanent relief to the pain (nocturnal pains of tertiary syphilis) which I have procured by persistence in the injections, I have observed, also, remarkable improvement in the lesions of the bones and muscles," is very startling, and the observations need confirmation by some able authority on syphilis. We think the comparison between herpes zoster and general and specific tissue changes in this connection is a poor one.

At p. 89, in speaking of the action of morphia in prolonging and reproducing chloroform narcosis and preventing death therefrom, some mention should be made of the directly opposite effect that is sometimes produced when the injection is followed by prolonged inhalation of ether.

On the same page, while physostigma is spoken of as an antidote in strychnia poisoning, no mention is made of chloral hydrate.

In speaking of atropia (p. 110) he makes the following important statement: "A delicate female having light blue eyes and flaxen hair possesses, according to my observation, the maximum susceptibility." The great importance of this observation, if confirmed by others, will at once be seen. It is too bad that some such exact truths are not known regarding those who are specially susceptible to the narcotic action of opium.

At pp. 111 and 112 the physiological action of atropia are well and tersely described.

The author, in this connection, seems to entertain no doubt as to the general antagonism of opium and belladonna. The question is still unsettled, at least not sufficiently determined to admit of taking it for granted in the manner here shown.

The doctor's experiments, while well and carefully made, are by no means conclusive, having in part the same fault as those of Geo. Harley—the fact of their being done on but one or two subjects, and not sufficiently often.

Under the therapy of morphia we see no mention made of its use in malarial troubles. Articles upon this subject have appeared in various journals in this country. We call to mind one by Dr. F. D. Lente (*N. Y. Med. Journal*, vol. 11, p. 178).

The author seems to take but little notice of the peculiar symptoms that follow supposed injections of morphine into veins and does not dwell with sufficient stress upon the dangers that attend this form of administration in some persons and in some diseases. This latter is, we believe, well authenticated and worthy of more careful consideration and fuller notice than the author has given it.

At p. 132 the author states that, in the subject of his experiment at least, atropia added to the soporific action of morphia, had diminished the number of respirations more than when morphia alone was used. He says "It will be seen that the antagonism between them does not extend to the respiratory function." This is in direct opposition to the observations and teachings of Fothergill. ("Antagonism of Therapeutic Agents," Phila., 1878, p. 116-125).

After closing with morphia and atropia, which occupy about one-half the book, and partakes more of the nature of a treatise than a manual, the sections on other drugs are very brief, notably so in the case of nicotia, hydrocyanic acid and woorara.

In the section on aqua puncture we see no reference to the article of Dr. Siredey (*Bull. de Therapeutique*, vol. 1, No. 10, 1873).

Space does not permit us to go more fully into the subject. The book is certainly excellent, and worthy of careful study by all. We repeat, that Dr. Bartholow has done the profession a real favor in its production.

CORRESPONDENCE.

CASE OF CHARLES H. WARREN.

1611 CHESTNUT ST. PHILA., }
NOVEMBER 3, 1879. }

Dr. Edward J. Bermingham:

DEAR DOCTOR: I see it stated in THE HOSPITAL GAZETTE for Nov. 1, 1879, that Mr. Charles H. Warren has, among other letters, one from myself, certifying to his wonderful ability of voluntarily dislocating almost every joint in his body. Permit me to say that Mr. Warren has no letter from me testifying to his possessing any such power. I presented him to the class in the Hospital of the University last winter, and made some comments on the remarkable muscular power which he professed for

simulating luxations, and the few lines which I wrote in his book convey no other idea than that these so-called luxations are only so in appearance. Except, indeed, in the matter of deformity, they lack any sign of a true dislocation.

Very truly, your friend,
D. HAYES AGNEW.

SELECTIONS FROM JOURNALS.

THE OBLITERATION OF THE VARICOSE VESSELS IN ROSACEA BY ELECTROLYSIS. BY W. A. HARDAWAY, A. M., M. D., ST. LOUIS.

An essential part of the treatment of rosacea is the obliteration of the hypertrophied blood-vessels which are to be seen in such profusion in the later stages of the disease.

The usual methods of operation have been either to divide the vessels longitudinally with a sharp knife, or to puncture them with a needle coated with some caustic, such as nitrate of silver, for instance. The plan that I wish to propose is very simple and satisfactory in its results; it requires as a rule but one sitting, and when properly performed leaves no scar, and causes no local reaction whatever.

A number thirteen cambric needle—a larger size should never be used—is inserted in any convenient electrode handle (Prince's is well adapted to the purpose), which latter is attached to the *negative* pole of a galvanic battery; a sponge-electrode is connected with the *positive* pole. The needle is then inserted sufficiently deep to enter the dilated vessel; so soon as this has been accomplished the patient approaches the sponge-electrode (positive) to the palm of his hand; after the electrolytic action has been properly developed, the patient releases the sponge- (positive) electrode, after which the operator withdraws the needle.

The number of elements employed will depend principally upon the susceptibility of the patient, and also upon the condition of the battery; but where the machine is freshly charged, six or eight elements will generally suffice.

The phenomena following the introduction of the needle are quite interesting: after a few seconds the point of puncture becomes quite blanched, as does also a small area of surrounding tissue; then the column of blood is seen, mercury-like, to run up the vessel and empty itself into the collateral branches, which apparently become distended. I presume the column of blood is forced up by the gas evolved upon the decomposition of that fluid.

If the vessel to be operated upon is a long one, and a single puncture is not sufficient for its obliteration, several must be made along its course. The needle is inserted either perpendicularly or parallel to the vessel: when the vessel is short the latter procedure may be employed, thus destroying it at a single puncture. Under a two-inch lens, with which I always operate, there is not much difficulty in entering the needle directly into the lumen of the vessel.

When a small needle—No. 13, cambric—is used,

the parts present nothing abnormal after the operation. The time required is not so long, nor is the puncture nearly so deep, as in the operation for the destruction of the hair papillæ; therefore one does not find the same amount of reaction following this procedure as occurs in the treatment of hirsuties.

Whether this method is applicable in all cases, or whether the results so far obtained will be permanent in their results, I should not like positively to affirm, as the number of cases operated upon has been too few, and the time which has elapsed since the operation too limited for dogmatic assertions; hence, I should desire this paper to be looked upon in the nature of a provisional report, to be supplemented by subsequent observation.—*Arch. of Dermat.*

UTERUS BICORNIS: DOUBLE PREGNANCY.

An interesting case of this kind is reported by Dr. E. Goutermann in the *Berliner Klinische Wochenschrift* for October 13th. Frau E., born in 1844, first menstruated at the age of 15, and from that time regularly, but very profusely. She was married in 1869; and in the next six years all her pregnancies, though unattended with any special disturbance ended in abortion at the third month; the catamenia appeared regularly two or two-and-a-half months afterwards. In September, 1875, she again became pregnant, and was delivered in the following June, after an easy labor, of a living and healthy female child. In the end of January, 1877, she had another abortion, which was followed by such profuse metrorrhagia as to demand medical aid; this had not occurred in her previous abortions. In November, 1877, she again became pregnant, the catamenia having been in the meantime very profuse, but regular in duration (four or five days). On December 30th, she had another abortion, which was attended with labor-like pains, chiefly limited to the right side. In the middle of February, 1878, the catamenia returned, and appeared at intervals of twenty-eight days with remarkable intensity; on the first day, large masses of coagula, not having an offensive odor, were discharged. On examining her at the end of March—three months after the abortion—Dr. Goutermann was astonished to find indications, in the enlargement of the uterus and the movements of the fœtus, that she was five months advanced in pregnancy. After consideration, he was led to suspect that the case was one of twin-pregnancy in an uterus bicornis; that one of the embryos had continued to develop itself after and in spite of the extrusion of the other; and that it was the emptied half of the uterus which menstruated. External and internal examination tended to confirm this view, but did not render it absolutely certain. The woman being very fat, the form of the fundus uteri could not be made out by palpation; the vaginal portion was normal, and the os was closed. Exploration with a sound was, of course, not attempted. She was ordered to rest, and to take easily digestible food. In the night of May 12th, Dr. Goutermann was called to the patient. He found the left hand of the fœtus much swollen, pro-

truding from the genital organs; the back lay forward, and the face to the right side. There were no pains nor hemorrhage. The fetus, a male, of about six months and a half, was easily brought into the world, but died some time afterwards. As the pains were insufficient to expel the placenta, Dr. Goutermann attempted to remove it by gentle traction and friction with pressure over the fundus uteri, but in vain. He then proceeded to introduce his hand, following the course of the umbilical cord. In doing this, he found that the os externum was formed as usual, but that the os internum, with the whole cavity of the uterus, was divided into a right and a left half by a septum. The right half, which had smooth walls and was empty, scarcely admitted the hand; in the left half, the placenta was adherent over the septum. The patient made a good recovery. In August, 1879, Frau E. was delivered of a living male child, which presented in the breech-position, from the left division. On this occasion, also, there had been abortion at the second month from the right division, and subsequent menstruation. —*British Medical Journal.*

NEWS ITEMS AND NOTES.

Naval Officers Oppose the Appointment of Dr Wales as Surgeon General of the Navy.—The officers of the medical corps of the navy, who feel aggrieved by the selection of Medical Inspector Wales to be Surgeon General of the Navy, have prepared a statement of the law rulings of the navy department and the reports of the Senate Committee in regard to the action of the Secretary of the Navy, which they will present to the Senate Committee on Naval Affairs at the coming meeting of Congress to defeat his confirmation. Dr. Wales does not belong to the rank of medical directors, but ranks number six on the list of medical inspectors. The brief which the staff officers will present to the Senate Committee points out that to appoint a junior officer from the second grade of a corps over fifteen of higher rank must necessarily tend to create dissatisfaction, and is manifestly wrong, both in policy as well as law, and is a result which was never contemplated by Congress. It appears from an order issued by Secretary Thompson in August, 1877, that he was of this opinion, as in general order No. 228 he says: "It is the well digested policy and intention of the department in making assignments to duty to assign the senior grades of the service to the higher and more important positions. This is what the law contemplates and reason and propriety demand, and it is most just and fair to all." Finally the brief recites the reports of the Senate Committee on Naval Affairs, which have been adverse to the selection of chiefs of bureaus from those below the rank of captain. It is believed that the nomination of Surgeon General Wales will be rejected.

Pay of Physicians.—Dr. Jarvis N. Husted sued Mrs. Sarah Ketcham for medical services performed for her between the 1st and 15th of April, 1873. The Doctor testified that his patient's life was in danger; that she had severe hemorrhage; that he

was obliged to make three professional calls upon her each day, and that his services were worth \$150, or about \$5 a visit. Dr. H. A. Harrison testified that a physician's services were worth from \$10 to \$20 per day, and Dr. Adolph Brandies testified to the same effect. Dr. Truman Nicholls testified that the pay of physicians in this city is what they can get—in other words, what the patients choose to pay them, and that when they did not choose to pay it was a difficult matter to make them pay. The defence was that the services were only worth \$30, that the Doctor only called twice a day, and that when he left on the 15th of April he said if the defendant was poor he would only charge her \$30. The plaintiff denied that the defendant was poor, and called a witness to prove that about the commencement of the suit she received a share of real estate worth about \$600. The jury returned a verdict for the plaintiff for \$150. Mr. George F. Langbein appeared for the plaintiff and ex-Judge Richard Busteed and Charles Frazer for defendant.

The town of Woonsocket, R. I., is soon to have a new hospital. The late Dr. Ezekiel Fowler, of that town, left at his death a considerable sum of money to be devoted to this purpose. The accumulations of this bequest, together with additions by other donors, have amounted to such a sum as to warrant the commencement of the enterprise. The hospital is to be built upon the pavilion system, and will be practically free. Dr. Ariel Ballou is the president of the corporation, and it is largely through his efforts the accomplishment of the purpose of the original donor is now so near at hand. Woonsocket is a manufacturing town of nearly fifteen thousand inhabitants, and the establishment of a free hospital within its limits cannot fail to be of immense benefit. —*Boston Jour.*

A scholarship in Physiology, valued at \$1,000 in memory of the late George Henry Lewes, has been established in one of the English Colleges. It is open by competition to either sex and its object is original research in matters purely physiological.

Pepsine.—In the French Academy of Medicine, M. Vulpian has called attention to the fact that pepsines delivered from different pharmacies vary much in their digestive power, some of them modifying albumen so slowly as to make it doubtful what good effect they can have when administered to dyspeptics. He also confirmed a conclusion arrived at some time ago by Dr. Symes (*Pharm. Journ.*), that the action of pepsine is retarded by the presence of alcohol. Wines and elixirs of pepsine are very much used in France, and as M. Vulpian went on to say that some of the most renowned elixirs contained an extremely small quantity of pepsine, the rest intended to have been present having probably been precipitated by the alcohol during the manufacture of the preparations, the statement has caused some little sensation amongst the makers.

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LECTURES.

APHASIA — EPILEPSY — HYSTERIA — EXOPHTHALMIC GOITRE — CEREBRAL HEMORRHAGE.

A Clinical Lecture Delivered at Bellevue Hospital, October, 1879,

BY

EDWARD G. JANEWAY, M.D.,

Professor of Pathology, Anatomy and Histology, and Director of the Nervous System at Bellevue Hospital Medical College.

Reprinted for THE HOSPITAL GAZETTE and Reprinted by the Lecturer.

APHASIA.

Those of you who were here last week will remember this patient, who was at that time lying in bed and suffering from aphasia, so that he could hardly utter a word; he also had paresis of the right side and was unable to walk. The treatment has consisted of the application of the actual cautery and the administration of bromides and iodides. Now, as you see, he sometimes recognizes an article when he sees it, but more frequently names it wrongly; but when the name is written on the board he reads it correctly enough, though it takes him some time to pronounce the word, and he only succeeds after considerable mumbling. When he attempts to write his name he produces a scrawl. In addition to the aphasia there is a certain amount of mental impairment here. The aphasia manifests itself in his reading, writing, and gestures; it isn't simple forgetfulness, but there is a certain amount of ataxia combined with it. I may have occasion later in the session to show you cases in which the patient recognizes an article, but cannot repeat the name when it is told him, or in which he can repeat it but not read it, or name it when seen.

ECLAMPSIA.

This patient is a female, age 22, married. The other day my attention was called to her in the ward by the attendant, who told me that she was acting queerly. At that time her face, lips and finger-nails were of a dusky hue, cyanotic. I suspected the occurrence of thrombosis or embolism; the pulse was about 120, and small; she had some little fever. There was nothing abnormal in the heart or lungs, and yet here she was, with this deep bluish tint; there was also no obstruction in the larynx. Soon I noticed a little twitching of the face; this told me that she was probably going to have a convulsion; but what was the cause of it? I further noticed that she was hardly breathing at all; for some reason the medulla oblongata did not respond to the feeling of want of air in the part of the system. Another thing pointed in the same direction; preced-

ing any convulsive movement there was acceleration of the pulse, showing that the inhibitory action of the pneumogastric nerve was interfered with. After the lapse of five minutes she had a clonic convulsion, affecting the face and upper extremities; she frothed at the mouth, the saliva contained a little blood and there were a few râles in the chest. The urine contained very little albumen, a faint trace. It might have been a puerperal convulsion or an old epileptic attack. Before and after her recent delivery she had had some swelling of the feet and there was some albumen in the urine. But she told me that when young she had had epileptic attacks which had disappeared for a number of years. Now the urine has neither albumen nor casts, and its specific gravity is normal, as well as its quantity. The albumen might have been caused by congestion of the kidneys, due to pressure on the renal veins. She had a hypodermic injection of morphia, and chloroform was administered. Soon after the convulsion was over all dusiness disappeared, the pulse was about 80 and the temperature fell from 105° to 100°. On recovering consciousness she stated that she had had a convulsion nearly every day from her eighth or ninth year till her twelfth or thirteenth. After that they left her, but returned about a year ago after she had been drinking a glass of sweet cider. This may or may not have been the cause. Evidently then the diagnosis is epilepsy.

HYSTERICAL CONVULSIONS AND RETENTION OF URINE.

This patient is quite a marked contrast to the one you have just seen. You notice the twitching of the eyeballs—nystagmus, as it is called. The pupils are also dilated. Yesterday she had ten convulsions, and to-day she has had three. During them she retained her consciousness, could answer questions, and by throwing cold water over her she immediately came out of them. These attacks were undoubtedly hysterical. I have seen pressure on a circumscribed spot, as over the insertion of the sterno-mastoid, arrest a hysterical convulsion, but it fails to do so in this case. (This patient, on being taken to the ward, was noticed to have a large tumor of the abdomen, dull on percussion and fluctuating; the use of the catheter discharged a large quantity of urine, and the tumor disappeared.)

EXOPHTHALMIC GOITRE.

This patient first came under my care three years ago. At that time she told me that she was twenty-three years of age. There was no hereditary tendency derived from the father; the mother had had rheumatism and heart disease. She herself had always, previous to the commencement of her present trouble, enjoyed good health, with the exception of an attack of erysipelas. Her trouble began in 1872; she had pain in her head and vomiting, lasting about three weeks; this was followed by swelling of the whole body, which subsided, except from the face and eyelids, and eventually receded from them also, leaving only this swelling at the front of the neck. About this time the heart first began to beat perceptibly to the patient; a year later the eyes began to protrude. Her menses were regular; occupation, housework. When I first saw her three years ago she suffered from supraorbital neuralgia,

The eyes protruded; though she could shut them, she slept with them open. The thyroid gland was three inches in length and six inches in width; trachea and tracheal cartilage were present over the superior thyroid artery and the superficial veins were noticeably enlarged. The pulse was 120, the temperature $99\frac{1}{2}$; the heart showed a slight increase of the left ventricle and a slight murmur at the base. At first she was put upon digitalis, but as this disagreed with her stomach, aconite was substituted, and the galvanic current was applied three times a week. By these means the number of pulsations was reduced from 120 to 80, and the condition of the thyroid gland was much improved. I then lost sight of her, but hunted her up a few days ago in order to see whether the improvement had been permanent or not. The neck is perhaps an eighth of an inch larger to-day than when I first saw her. The pulse is again almost 120. On examining her neck I notice a tumor, situated over the course of an artery, having pulsation, bruit and thrill—all the signs of an aneurism; but the three clinical features of enlarged thyroid, palpitation of the heart, and protrusion of the eyeballs stamp this as a case of exophthalmic goitre, Basedow's disease or Graves' disease. I might add that I have known two cases of this disease considered aneurism of the carotid in consequence of the features above mentioned (the exophthalmos not being very marked.) This is much more common in females than in males. Of seven cases that I have seen lately, six were females. On examining the heart I notice that the apex-beat is at least one inch outside of the line of the nipple; there is also some increase of pericardial dullness. There is a rather forcible action and some lifting of the heart, which means that there is slight hypertrophy. This is also indicated by its changed position, unless it is pushed out of place by the lungs; but on examination I find neither air nor gas in the pleural cavity. The temperature is $100\frac{1}{2}^{\circ}$. It would seem that this is 2° higher than normal; but this is not strictly true. Some time ago, I took the temperature of four persons under the tongue, and found it respectively, $98\frac{1}{2}$, 99, $99\frac{1}{4}$, $99\frac{1}{2}$, and these persons were then and have since continued in good health. Hence there is a variation even in health, especially when the temperature is taken under the tongue. But in her case there is a cause for the increased temperature; she has a slight laryngitis and bronchitis; you notice that she has aphonia,—can only speak in a whisper; this is in the main due to the catarrh of the larynx. You see, too, the prominence of the veins on both sides.

Now I want to show you one method of treatment in these cases; it does not do to trust to one method alone. I am going to apply electricity now in order to find out which is the positive pole. I apply the electrodes to my cheeks, and the positive pole is the one on the side of which I get a metallic taste in the mouth. We are told to apply one pole of the galvanic battery over the back of the neck and the other over the sympathetic; this I now do. But in placing this pole over the sympathetic I must, of course, also place it over the pneumogastric, for we cannot act upon one of these nerves in this situation without acting on the other. Stimulation of the pneumogastric causes slowing of the heart by

its inhibitory action, and I have often thought that it is the stimulation of the pneumogastric and not of the sympathetic that does the work in these cases. I have applied the galvanic current for palpitation and irregularity of the heart where medicines failed, and produced a cure in several cases. It acts on the nerves and on the imagination. Now, after passing the current on this patient for five minutes the rapidity of the pulse is reduced to 96 per minute. Another method of slowing the heart is to take a number of long breaths; this slows the heart and produces dizziness.

About the cause of this affection I have nothing to say at this time, as I hope to show you other illustrations of the same disease, and will then sum up what is to be said on the subject. I always inquire as to mental anxiety. I shall treat this patient with the constant current, applying it three times a week, first to one side of the neck, then to the other.*

CEREBRAL HEMORRHAGE.

This patient is a widow, 60 years of age. She has always been healthy. She had chills and fever coming once in a while for a year; though this ceased last winter. Her habits of life have been regular. She has worried a great deal lately about the loss of a daughter; she has had to do hard work, washing and ironing. Her present trouble began about seven weeks ago, with a headache, a burning pain at the top of the head which came on after she had done a particularly hard day's work. This lasted in its original severity for two weeks, and she has some of it still. Then she had a diarrhoea which lasted till yesterday, sometimes having as many as seven passages a day; (this was probably a dysentery,) for it was attended with pain and griping and tenesmus (a desire to go often to stool.) About two weeks ago she went to bed feeling as usual and on waking up in the morning she found that her arm and side were black, and examining now we find that there have undoubtedly been hemorrhages in the arm and side and in spots on the leg. There is no evidence of scurvy or purpura, and it is limited to one side and associated with hemianæsthesia of the whole side affecting also the fifth nerve; this latter is less than it was four days ago. On squeezing the dynamometer with the right hand she makes it mark 60, with the left 30. We may have the cause in the brain, in the right posterior spinal roots, or in pressure on the arm by blood on the nerve-sheaths; but the fifth nerve is affected; therefore the cause must be sought for in the brain. It is probable that the lesion was situated near the posterior part of the internal capsule and produced its effects more by pressure than laceration. The ecchymosis is probably the result of a convulsion which she had during the night. The treatment should consist in rest, counter-irritation to the back of the neck and iodide of potassium to aid absorption. She should cease worrying and have good food. Later on, for the anæsthesia we may try the metallic brush with the faradic current.†

*Dr. Janeway has since informed the editor that under the above treatment and Blancard's porto iodide of iron pills marked improvement has occurred, the heart only beating 84 per minute.

†This case we also learn has made marked improvement under the treatment marked out.—E.P.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

HEPATIC ABSCESS (IDIOPATHIC?)

Patrick L., age 53, laborer. Family history unimportant. Patient has always been healthy and denies venereal disease. He has been a hard-working man, drinking moderately. Four weeks before admission to the hospital, Sept. 17th, while carrying a hod up five flights of stairs during the hottest days of the season he was taken with nausea and vomiting. Two days later he became very much jaundiced and noticed a tender spot over the region of the liver. He had no diarrhoea, and had none all summer, neither had he received any injury. The vomiting, retching, and jaundice gradually improved but Sept. 12th, five days before admission, he noticed a tumor in his right side below the free border of the ribs; the pain in this region also increased; he became unable to work and finally came to the hospital.

On admission he appeared to be well nourished, the only thing of which he complained was the pain and swelling in the right hypochondrium. The thoracic organs were normal. A round swelling was found in the right hypochondrium, extending into the epigastric and slightly into the umbilical region. At its center the skin was somewhat reddened, palpation giving an elastic, slightly fluctuating feeling, while below it and to the left the free edge of the liver could be felt. Friction fremitus could also be felt. Percussion revealed dullness over the whole tumor, continuous with the liver-dullness above which it extended to the sixth rib. A friction-murmur could be heard. The hypodermic needle was inserted and a puro-sanguinolent fluid withdrawn. The other abdominal organs were normal. The urine was dark, acid, of a specific gravity 1025, contained no albumen and no bile. The stools were thin, yellow, and very offensive. The patient had some fever.

Sept. 19th.—The treatment has been rest and careful diet. Since he has been in the hospital the pain has been somewhat relieved but there is no change in the tumor. Temperature A.M. $100\frac{1}{2}^{\circ}$, P.M. $101\frac{1}{4}^{\circ}$.

Sept. 20th.—Tumor was aspirated to-day and four ounces of a sero-sanguinolent fluid drawn off.

Sept. 21st.—Temp. A.M. 101° , P.M. $101\frac{1}{2}^{\circ}$. At 7 A.M. the patient was attacked with a very severe pain over the liver. The tumor, which had been diminished by the aspiration, was larger than ever. His pain was relieved by $\frac{3}{4}$ ij. Liq. morph. sulph. (U. S. P.)

The fluid drawn off by the aspirator was examined by the microscope: it showed sheaf-shaped, bile-stained crystals; also cholesterol crystal, a few leucocytes and blood corpuscles. Chemical test showed albumen and mucus but no bile.

Sept. 22.—Temp. A.M. 102° , P.M. $101\frac{1}{2}^{\circ}$. The patient is weaker and suffering from attacks of pain. The tension of the tumor is greater. At 2.30 P.M. a free incision about 2 in. long was made into it; a pint of dark fluid consisting of shreds of hepatic

tissue, occasional clots of blood, a little pus, and slough came out, but it was evident that the greater part of the contents remained behind. The incision was kept open with tents and arranged so that the fluid drained away until about two pints were collected. After this the patient was relieved of pain and his temperature fell two degrees. The pulse not improving, he was ordered half an ounce of whiskey every hour. Milk and eggs were also given. The abscess was syringed out every four hours with a weak solution of carbolic acid.

Sept. 23d.—Temp. A.M. 103° , P.M. $103\frac{1}{4}^{\circ}$. The patient is very weak; he had an involuntary evacuation from the bowels in the morning. Vomits his milk and eggs. Extremities cold. Pulse rapid and feeble; cries out with pain at times. Ordered one ounce of whiskey every hour and U. S. solution of morphia to quiet pain. No more evacuations or vomiting, but bowels are very tympanitic though not painful. He continued to grow worse and at 12 o'clock at night died.

AUTOPSY.

Brain.—Not examined.

Lungs.—Slight emphysema in front above, congestion and œdema posteriorly.

Heart.—Firm white clot in right ventricle, extending into right auricle; valves and walls normal.

Liver.—Was enlarged, extending down as far as umbilicus, the left lobe lying in the left hypochondrium. Its superior surface was attached by easily broken bands of adhesion to the abdominal walls in the right hypochondrium. The extent of the attachment was somewhat larger than the whole hand, and the opening incision was in about the center of the attached surface. The whole of the interior of the right lobe was broken down, forming a cavity larger than a child's head. It was filled with the broken-down hepatic tissue in large and small masses; and some clots of blood. The walls of the cavity were beginning to suppurate and some pus was found on the outer portion of the central mass. The hepatic ducts, hepatic arteries, and portal vein were followed up, but nothing was found to explain the condition of the organ.

Kidney, stomach, spleen, intestines were normal.

SOCIETY PROCEEDINGS.

MEETING OF THE PATHOLOGICAL SOCIETY, NOV. 12TH, 1879.

(Reported for THE HOSPITAL GAZETTE.)

The meeting was called to order at 8 P.M., the vice-president, Dr. Jos. W. Howe in the chair. Soon after, however, Dr. E. L. Keyes, the president, came in and assumed the gavel.

The minutes of the last meeting were read by the secretary, Dr. Shrady, and adopted.

Dr. H. N. Heineman, in proposing Dr. Adolph Kessler for membership, presented for him a specimen of

INTERSTITIAL MYOMA OF THE UTERUS, WITH A FRAGMENT OF RETAINED ADHUKENT PLACENTA.

The history of the case was as follows: Mrs. C. E. P., æt. 37, had an abortion in the first year of

her married life, about seventeen years ago. She was not again pregnant till six months ago. The patient suspected a tumor in April, 1878, but on examination Dr. Kessler could find no evidence of it, and in this opinion an eminent gynecologist of this city coincided. In January, 1879, Dr. K. was called in for a severe pain in the right side of the abdomen, and rather profuse hemorrhage from the womb. This latter symptom had existed for a number of months in a mild degree, without exciting any anxiety on the part of the patient. On examination now, palpation revealed a large tumor extending two inches above the umbilicus, and eight inches in diameter. The subcutaneous injection of ergotin was practised from this time till May, when it had to be discontinued on account of the formation of an abscess. At this time the menses were regular and normal; the hemorrhage had entirely ceased, and the tumor had diminished in size, so that it now measured only three inches in diameter. After the abscess had healed the hypodermic injection of ergotin was resumed, and continued till June 7th, when *the tumor seemed to have entirely disappeared*, and the patient was allowed to go to the country. Five weeks later she returned, and on the doctor being sent for, he found that the menses had ceased, and there was again an abdominal tumor, and soon it was possible to make out the signs of the existence of pregnancy as well as of a foreign growth. Dr. Lusk was called in and confirmed the diagnosis. She still complained of a sense of painful weight and dragging, and on the 25th of September she was delivered of a four months' foetus, *without much pain or hemorrhage*. The placenta was not delivered, and even when the patient was under the influence of chloroform it was impossible to do more than separate a few shreds. The uterus was washed out with a solution of carbolic acid, but this had to be discontinued on account of the shock which it caused, producing chills; symptoms of septicæmia set in, the pulse ran up to 140, the temperature rose up to 106.5° and, in spite of the strictest antiseptic precautions, the patient died on the 2d of October.

The autopsy showed that the heart was normal. The lungs were bound down by old adhesions, and were congested. The spleen was large and soft. The kidneys showed already, swelling of the epithelium. The intestines were the seat of a catarrhal inflammation. The pelvic cavity and the lower part of the abdominal cavity were nearly filled with a tumor which was found to occupy the anterior wall of the uterus, and to measure fifty-nine centimetres in circumference, and twenty in length. The uterine cavity was markedly curved toward the left, the inner surface of the uterus was devoid of mucous membrane, and emitted a foul odor; near the left corner was a sloughy mass of retained placenta. The veins were enlarged, but there were no thrombi, or metastatic material. There were several small cysts in the broad ligament,

Dr. Erskine Mason presented a specimen of

RECURRENT SPINDLE-CELL SARCOMA.

The patient was a widow, aged 34, who first came under Dr. Mason's notice Feb. 1st, 1878. Two years previously she had an abscess of the upper jaw which was supposed to have been caused by a

decayed tooth. The abscess broke and at its site a small growth made its appearance and seemed to grow. She was taken to Roosevelt Hospital, Sept. 9th, 1878; at that time the whole superior maxilla was involved; she had intense pain in the side of the face, the eyeball protruded slightly and the eyesight on the affected side was deficient. On the 13th of March the whole of the superior maxilla was removed; she recovered rapidly from the operation; her eyesight was improved but not entirely restored; she left the hospital August 14th. March 1st, 1879, she was re-admitted; it was then found that the growth had returned and projected into the mouth; its surface was occupied by a small, vascular growth from which she had considerable hemorrhage. March 13th, 1879, Dr. Weir, who was at that time on duty, removed all of the diseased part within reach. No sooner had the wound healed than the growth reappeared, the hemorrhages from the nose and mouth became more severe and could only be arrested by the application of Pacquelin's actual cautery; she died July 16th, 1879. At the post-mortem examination it was noticed that the left eye protruded and there was found a white tumor which took the place of the superior maxilla and partly of the sphenoid, and projected in all the neighboring fossæ and fissures and into the middle fossa of the skull. The vessels of the pia mater were congested and on the under surface of the left middle temporal lobe there was a depression of the size of a horse chestnut. There was also a deposit of the new growth around the sheath of the optic nerve. Dr. Mason said that he had had a similar case in the same institution in which the tumor had returned in six months and the patient had died in nine months. In answer to a question by Dr. Howe, Dr. Mason said that the hemorrhage probably had a good deal to do with the death. In answer to one by Dr. Seguin, Dr. M. stated that there were no cerebral symptoms that could not be explained by the hemorrhage; the patient had been a little flighty before death but this he attributed to the loss of blood; there was no paralysis.

Dr. E. C. Seguin called attention to the fact that the situation of the depression in the brain was very similar to that of the abscess in the case of tuberculosis presented by Mrs. Dr. Jacobi last month and yet there were no cerebral symptoms in the case of Dr. Mason, while in that of Dr. Mary Putnam Jacobi the abscess was supposed to have caused paralysis, etc.

Dr. Joseph W. Howe presented a specimen of

CANCER OF THE INTESTINES

taken from a patient on whom he had performed lumbo-colotomy: She was a Bohemian, aged 58, admitted to St. Francis' Hospital, Feb. 19th, 1879. She could not, owing to ignorance of any but her own language, give any account of her previous history; from her brother it was learned that for eleven months before her admission she had pain and difficulty in emptying the bowels and had passed blood; that for a week prior to her coming to the hospital she had had no passage. Examination showed that she had cancer of the bowels; the rectum seemed completely closed up by the new formation which bled quite profusely when touched; there

was a constant discharge of a small quantity of pus from the anus. Attempts to secure a passage by passing a tube beyond the new growth failed, and castor oil produced no action. Three days after her admission lumbo-colotomy was performed in the usual manner. She recovered rapidly from the effects of the operation. Soon after it was performed she had six passages; on the third day her temperature was 101° , pulse 102; after a week the sutures were removed from the upper part of the wound; at that time her temperature was 100, pulse 100. She had regular and early passages from the artificial anus; a slight amount of prolapse was readily overcome, she continued to do well, was free from pain, and was discharged in June. In September she died from cancerous disease of the rectum and other organs. When admitted to the hospital she seemed almost moribund, and the operation undoubtedly prolonged her life about seven months.

Dr. Briddon said that he thought that a free incision of the muscular structures prevented prolapse.

Dr. Jos. W. Howe also presented specimens of

VESICAL CALCULI.

which he had removed from a patient, female, aged 60, single, who was admitted to St. Francis' Hospital, Sept. 7th, 1879. Two-and-a-half years before she had had an attack of renal colic, and since then she had suffered from pain in the hypogastric region, with frequent desire to micturate, and pain at the meatus urinarius. For two years she had been unable to pass water at all, and had to have the catheter passed very frequently. On admission she was pale and weak; the urine was alkaline, contained pus and mucus and triple phosphate. Examination showed the presence of a calculus on the roof of the bladder near the neck, as well as one on the floor. Sept. 25th, the urethra was dilated to the diameter of about an inch by Molesworth's dilator and two calculi removed. The one on the roof of the bladder was found to be covered with a kind of false membrane, which came away with the stone. After the operation she received ten minims of Magendie's solution of morphia, and ten grains of quinine.

Sept. 27th.—She still had some pain and the urine dribbled from the bladder; the next day she had retention, and Sept. 30th the catheter had to be employed again every three or four hours. Believing that the retention of urine was voluntary, instructions were given to the nurse not to use the catheter, and for two days she succeeded in passing her urine, but at the end of that time the catheter had to be employed again. Dr. Howe believed that the use of the catheter was required by her to satisfy her erotic disposition (?). This case was remarkable for the fact that retention had come on twenty-four hours after the operation in spite of the dilatation of the urethra.

With reference to the first case reported by Dr. Howe, Dr. Mason wished to put on record a case of

LUMBO-COLOMOTOMY.

in which a fatal termination had ensued from too sudden relief of the distended bowels. The patient

was a lady, aged 34, who had had complete obstruction of the bowels for two days less than seven weeks. The abdomen was of course very much distended. The operation was performed in the usual way. At that time her condition was fair. Soon after the operation she had a large movement, and about an hour and a half later the bowels moved profusely, collapse ensued and the patient died seven hours after the operation. The obstruction was caused by malignant growth at the sigmoid flexure,

Dr. Briddon suggested perforation of the bowels, and Dr. Howe shock as the cause of death.

Dr. Heitzman, in presenting some microscopic specimens, wished to add additional facts to those which he had brought forward at a meeting in June last, in reference to the

SO-CALLED FATTY DEGENERATION OF THE

PLACENTA.

this, he believed, was really a waxy change. Dr. G. B. Green, of the House of Mercy, had taken up the study and made preparations of ten cases; the specimens were stained and put in the oil of cloves and turpentine, but did not show the changes ordinarily met with in fatty degeneration. Iodine gave a dark-brown color. Fuchsin stained the fat red but left the waxy mass unchanged. Gold chloride changed the waxy deposit violet. He had used methylamine but did not get the reaction, but this was owing to the specimens having been hardened in chromic acid, which interfered with the reaction. As to the cause he was unable to say anything. We know that it occurs in syphilis and in hogs. In two cases there was also waxy degeneration of the umbilical cord. Among the ten cases the youngest was ten weeks old, the eldest eight months, and only the two eight months foeti were born alive. The reason why the nutrition of the foetus was interfered with was that the new material was deposited in the basic substance and caused obliteration of the capillaries by pressure. Fatty degeneration was always due to living matter, and therefore found in the protoplasm; waxy degeneration was found in the basic substance.

Dr. Amidon presented microscopic specimens to illustrate the pathological anatomy of

IDIOPATHIC ERYSIPELAS.

The specimens were taken from a violent case which had occurred in the service of Dr. Wm. H. Draper at the New York Hospital in the spring of 1878, and involved the neck, face and hairy scalp. The patient had died of croupous pneumonia. Although a great deal had been written on surgical erysipelas, the literature on the subject of idiopathic erysipelas was scanty. The best article was in the *Centrallblatt* for August, 1878, in which the lesions were said to be subcutaneous oedema, and migration of the white blood corpuscles. There was also an article in the *Deutscher Clinic* for 1877, in which the changes were said to be cloudy swelling of the muscular fibres of the heart, softening of the spleen and liver and degeneration of the kidney; but these were found in almost all diseases attended during life with prolonged high temperature. Dr. A. found that there was, in the specimens of skin which he had examined, desquamation of the horny layer of the

epithelium, that the mucous layer of the epithelium was very thin, that there was no increase of the nuclei, and that in the outer layer of epithelial cells there were vacuoles about the nuclei. In many places the mucous layer was separated from the papillae. In the tactile corpuscles Dr. Amidon found no alterations for the reasons that he was unable to find any. The chief changes were in the subcutaneous areolar tissue; the blood vessels were very highly dilated and there was migration of the white blood-corpuscles. The hair-follicles showed choking up of their mouths by desquamated epithelium and the hair-shaft was eroded above the bulb. Sebaceous follicles were choked by fat and epithelium, as were also the sudoriparous glands. Most authorities laid great stress on the rapid subsidence of the disease, and explained it by supposing that it was produced by a germ or bacterium of little vitality, but of great reproductive power; but in the specimens examined by him, Dr. Amidon had found no bacteria.

Dr. Heitzman suggested that it would be advisable for Dr. Amidon to mount his specimens with glycerine, as the latter showed much more than Canada Balsam.

Dr. Carpenter said that in some specimens he had found bacteria and in others not.

Dr. E. C. Seguin presented microscopic specimens of

VACUOLES OR DROPSY CELLS,

a rare elemental lesion, obtained from a case of myelitis which showed descending degeneration. In these cases the ganglion-cell had its nucleus and nucleolus crowded down into a corner, as is often seen in normal cases, but in these specimens they were surrounded and overlapped by beautifully defined circles. The significance of these dropsy-cells were unknown; some said that they were accidental; but they had never been found in normal cases.

Dr. J. Lewis Smith presented specimens of

MEMBRANOUS OR DIPHThERITIC CROUP.

The specimens were taken from a child a year and a half old which had been sick for three days with hoarseness and a croupy cough, but only had medical attendance on the last day. The child died of apnoea; no membrane could be seen in the fauces during life, but at the post mortem examination a deposit was found on the posterior surface of the uvula. There was also found a pseudo-membrane on the under or posterior surface of the epiglottis, extending down over the whole larynx into the trachea. There was not much increased vascularity of the larynx, but considerable of the trachea. Dr. Smith did not know how to differentiate between membranous and diphtheritic croup, except by the fact of the contagiousness of the latter. He did not know anything better than the spray of lime-water, but it had been suggested to use pepsin on account of its well-known solvent power for albuminous substances. Pepsin, for purposes of inhalation, was prepared by a druggist of this city.

Dr. Smith also presented a specimen of

EMPHYEMA—PERFORATION OF LUNG BY ASPIRATOR

taken from a child two months old and which he brought before the notice of the society, on account of an unpleasant accident that had occurred in the course of treatment. The child was taken sick

Nov. 4th, with the ordinary symptoms of empyema. When it had been sick five or six days there was dulness over the infra-scapular region of the left side, and a hypodermic syringe showed the presence of pus. After two or three days the aspirator was employed, the needle was pushed through the thoracic wall between the ribs below the scapula and then turned vertically. During the operation the needle became occluded a number of times by what was supposed to be flocculi of fibrin, but was really, as afterwards appeared, lung-tissue drawn against the end of the needle by the power of suction, the lung not being yet bound down by adhesions, nor having lost the power to expand when the fluid was withdrawn. A number of times during the operation the action of the aspirator was reversed in order to inject the cavity with a weak solution of carbolic acid and to remove the supposed flocculi. Two or three ounces of pus were removed by the operation, which was followed by very little hemorrhage. Through the needle four threads were introduced and left in to establish a fistulous opening. After removing these threads on the following day it was found difficult to replace them, as there was trouble in finding the inner extremity of the opening and a new one had to be made. The child died at the end of a week. At the post-mortem examination there were found at the base of the lung, near the edge of the inferior lobe, a number of little openings, which were vertical in direction, showing that they were produced by the needle of the aspirator; one passed completely through the edges. On examining the walls of the chest there was found necrosis of one of the ribs. On speaking to the instrument-maker, in regard to this unfortunate accident, the latter said that at least two dozen other physicians had spoken to him about the same thing. He (Dr. Smith) had made up his mind that he would never again allow the point of the aspirating needle to remain in the chest when suction was being made, nor would he assist at an operation at which this was done. He would use a trocar and canula, removing the former after introduction and attaching the latter to the aspirator.

In discussing the first case presented by Dr. Smith, Dr. Heitzman said that he had failed to detect the cause of diphtheria, but that essentially croup and diphtheria were the same thing, the only difference being that in croup the fibrinous exudation went to the surface, while in diphtheria it went into the tissues. Hence in croup the exudation only was cast off, whereas in diphtheria portions of the tissue surrounding the exudation died, and nests of micrococci were found in them. In the early stages there were no micrococci.

In answer to a question, Dr. Smith said that pepsin for inhalation was manufactured by Oscar Kress, Pharmacist, B'way. and 52nd street, this city.

Dr. Carpenter said that he had examined seventy-five cases, in all of which he had found micrococci. In many cases also he had found a deposit, which had been thrown off, and yet the child had had diphtheria, and died of the constitutional symptoms.

In reference to the second case presented by Dr. Smith, Dr. Briddon said that all aspirators made in the last ten years had the trocar and canula attachment mentioned by Dr. Smith. He had used the

finest trocar, and time and again punctured the lung without unpleasant effects following.

Dr. Ripley presented a specimen of

ANEURISM OF THE TRANSVERSE PORTION OF THE ARCH OF THE AORTA.

The patient was a waiter, aged 34, who was admitted to the hospital Feb. 10th, 1879. He had had scarlet fever, typhoid fever, rheumatism, gonorrhœa and syphilis. Seven weeks previously he had had pain in the shoulder, hip and side. He had a cough and double heart murmur. The trouble was supposed to be syphilis, for which he was treated, and after six weeks was much improved; he was, therefore, discharged with no unpleasant symptoms, except hoarseness. Four months later he returned, complaining of cough and dyspnœa, pain in the left shoulder and side; there was a muco-purulent expectoration. Rest and sedatives were ordered. In October there was deficient expansion of the chest, epigastric recession on respiration. The situation of the apex of the heart was normal, but its beat was feeble. The left radial pulse was weaker than the right, but the right subclavian beat was more marked than the left. The diagnosis of intrathoracic tumor, probably aneurism, was made. A laryngoscopic examination by Dr. Elsberg showed congestion of the larynx and paralysis of the left vocal cord. A few days later there was heard a bruit, a distinct murmur over the fourth rib, and a positive diagnosis of aneurism of the transverse portion of the arch was arrived at. He died in October. At the autopsy, on opening the chest, the lungs did not collapse, but were found adherent; they still remained distended on being removed from the thorax, and were found emphysematous. There was observed an aneurism of the transverse portion of the arch of the aorta originating between the innominate and the left common carotid, springing from the posterior and upper wall, and extending to the left subclavian. It pressed on the bronchi and trachea, and crowded the left recurrent laryngeal nerve, until its entrance into the laryngeal muscles. The heart was nearly normal; the ascending portion of the arch was considerably dilated, and atheromatous. One of the points of interest in this case was the condition of the lung, which was such as is met with in children with croup on whom tracheotomy had been performed: about the third day the temperature runs up and the children are said to die of pneumonia; but in no case in which children died of croup had he (Dr. Ripley) found pneumonia, and he believed pneumonia complicating croup to be rare. Another interesting point was the absence of hypertrophy of the left ventricle. Dr. Lee presented specimens of

OVARIAN CYST AND CYST OF THE BROAD LIGAMENT

for the purpose of showing the difference between them. The first was a large ovarian cyst which was removed about ten days ago; although it had existed for about ten years and the patient had had two attacks of supposed peritonitis, there were no adhesions. The cyst contained 27—28lbs. of a highly albuminous fluid. The sac was thick, rough, solid to the touch and without venous development on the surface.

The second specimen, which had been loaned by Dr. Emmet, was a serous cyst of the broad ligament. In appearance it differed strikingly from that of an ovarian cyst, its surface being covered with veins. Serous cysts of the broad ligament were rare, their proportion to ovarian cysts being 1 to 57; the fluid contained in them is not albuminous and hence is innocuous to the abdominal cavity and it is unnecessary to extract, as it is safe to tap them. They may be diagnosed from ovarian cysts by their being of slow growth, producing no emaciation, and by tapping the tumor and finding no albumen in the fluid. Under the microscope the fluid obtained from the ovarian cyst showed the "ovarian corpuscle" while that of the cyst of the broad ligament was negative.

Dr. E. L. Keyes showed the latest improvement in the washing-bottle used in rapid lithotripsy, which had been sent to him by Sir Henry Thompson and which he had twice already made use of.

He also presented a number of

VESICAL CALCULI, REMOVED BY FIGELOW'S METHOD.

Four of which had been removed respectively on the 17th, 18th, 19th, and 20th of October and the other ten days before the meeting. The largest when dry weighed 9 drachms, the smallest 30 grains but took a much longer time to evacuate. He had now operated in this way twenty times in all, and only lost this one case, which was at the second crushing.

This specimen was taken from a man of 67, who had had irritation of the bladder for ten or twelve years and had been confined to bed for the last nine months, passing the catheter every hour. The disease was said to be prostatic enlargement, but he had examined him and found stone. As the patient's general condition was reasonably good and as Dr. Keyes had operated successfully on a patient who had Bright's disease and heart-disease, he determined to undertake the operation. The first operation took place Oct. 17th; there was great difficulty in seizing the stone, this part of the operation requiring thirteen minutes by the watch, and the operation being suspended at the end of an hour in consideration of the condition of the kidneys. After the lapse of two or three weeks it was determined to attempt to remove the remaining portion. The trouble was that the stone was lodged in a pouch, situated at the entrance of the right ureter, and was only displaced by filling the bladder and turning the patient on his right side. The patient died on the fourth or fifth day, constantly nauseated and with almost complete suppression of urine. At the post mortem examination the bladder was found distended and filled with pus; its mucous membrane had sustained no injury. There was moderate median hypertrophy of the prostate. The ureters were distended, the pelvis of the kidneys contained pus, and in that of the left were small pieces of stone; the right kidney was about two-thirds of its natural size. It was possible that the second operation was undertaken too soon after the first.

Dr. Keyes also presented for Dr. Fox a specimen taken from a patient on whom rapid lithotripsy had been performed and in whose case rupture of the bladder had occurred from ulceration by an encysted

stone. The patient had died with uræmia and high temperature.

Mr. Lee suggested the use of Simon's method of rectal manipulation for the purpose of removing and placing in the jaws of the lithotrite the stone, in cases in which it was encysted or difficult to seize. He narrated a case in which a woman was almost moribund with a retained placenta, and in which he had succeeded in removing it and saving the woman's life by this manoeuvre.

Dr. Keyes recalled to Dr. Lee that the male and the female rectum differed in some important respects.

The society then went into executive session and adjourned at 10:30 P.M.

ARMY AND NAVY NEWS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOV. 8TH 1879 TO NOV. 21, 1879.

Wm. S. King, Lieut. Colonel and Surgeon. The extension of his sick leave of absence granted him March 6, '79, from A. G. O., is further extended six months on account of sickness. S. O. 254, A. G. O., Nov. 8, '79.

W. S. Tremaine, Capt. and Asst. Surgeon. The leave of absence on Surg. certif. of disability granted him in S. O. 214, Oct. 27, '79, from Hdqrs. Dept. of the Missouri, is extended two months on Surgeon's certif. of disability. S. O. 255, A. G. O., Nov. 11, '79.

F. W. Elbrey, Capt. and Asst. Surgeon. Relieved from duty in Dept. of the South and to report in person to the Comdg. General Dept. of the Missouri for assignment to duty. S. O. 254, c.s., A. G. O.

C. B. Byrne, Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Comegyo to comply with S. O. 231, c.s., from A. G. O. S. O. 231, c.s., Dept. of Texas.

V. Harvard, 1st Lieutenant and Assistant Surgeon, granted leave of absence for one month, from 25th inst., with permission to apply for one month's extension, provided he furnishes satisfactory medical attendance to the command at Fort Johnston, N. C., at his own expense. S. O. 168, Dept. of the South Nov. 10, '79.

E. T. Comegys, 1st Lieut. and Asst. Surgeon, assigned, temporarily, to duty as Post Surgeon at Fort Duncan, Tex. S. O. 231, Dept. of Texas, Nov. 3, '79.

J. Y. Porter, 1st Lieut. and Asst. Surgeon, granted leave of absence for five months. S. O. 254, C. S., A. G. O.

Chas. Richard, 1st Lieut. and Asst. Surgeon, relieved from duty at Fort Buford, D. T., and to report to C. O. Fort Snelling, Minn., for duty at that post. S. O. 124, Dept. of Dakota, Nov. 2, '79.

E. J. Bailey, Lieut. Col. and Surgeon, Medical Director of the Department, granted leave of absence for one month. S. O. 157, Dept. of the Columbia, Nov. 3, '79.

Frank Meacham, Capt. and Asst. Surgeon, Fort

Brown, Tex., granted leave of absence for one month. S. O. 236, Dept. of Texas, Nov. 8, '79.

C. Carvallo, Capt. and Asst. Surgeon, to report in person to Col. Albert G. Brackett, 3rd Cavy., commanding troops at Rawlins, W. T., for duty with his command. S. O. 102, Dept. of the Platte, Nov. 10, '79.

R. E. Smith, 1st Lieut. and Post Surgeon. Granted leave of absence for four months from Dec. 1, '79. S. O. 240, A. G. O., Nov. 15, '79.

CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE TWO WEEKS ENDING NOV. 14, 1879.

Surgeon E. S. Bogert and Pd. Asst. Surgeon M. D. Jones, detached from the U. S. S. Monongahela, and wait orders.

Pd. Asst. Surgeon J. R. Waggener, detached from the New York School Ship St. Mary's, and ordered to the Receiving Ship, Boston.

Asst. Surgeon C. W. Deane, detached from the Recg. Ship, Boston, and wait orders.

Pd. Asst. Surgeon Jno. W. Ross detached from duty with the National Board of Health and ordered to the School Ship St. Mary's.

Pd. Asst. Surgeon Geo. C. Lippincott, detached from the Navy Yard, New York, and ordered to special duty. Bureau of Medicine and Surgery.

Asst. Surgeon C. J. Hourse, detached from the Recg. Ship, Norfolk, and ordered to U. S. S. Tallapoosa, temporarily.

Pd. Asst. Surgeon F. Anderson ordered to the Navy Yard, New York.

Asst. Surgeon J. E. Gardner ordered to the Receiving Ship, Franklin, Norfolk, Va.

Medical Director C. L. Gihon and Medical Inspector B. T. Gibbs ordered as delegates to represent the Medical Corps of the Navy at a meeting of the National Public Health Association at Nashville, Tenn.

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and the Collateral Sciences.


EDITED BY

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
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
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
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NEW YORK, SATURDAY, DECEMBER 6TH 1879.

EDITORIAL.

By reference to the department of correspondence in this number of the *HOSPITAL GAZETTE*, it will be seen that the *Louisville Medical News* in September last, started in circulation a report to the effect that Surgeon General Hammond had failed to give proper credit to Charcot for many illustrations copied from the latter's to the former's book. The charge was so openly made that the medical and lay press generally have copied it, with comments reflecting severely upon General Hammond.

From the first, we knew from our reading of Hammond's work, that there was no foundation for such a remark by Charcot, and farther, we knew that had there been such foundation in fact that Professor Charcot was not the person to make public

his complaints, until he had first attempted to obtain justice from whomsoever had given him offence. We are surprised that the medical journals have so positively demonstrated their own weakness, since Dr. Hammond's and Prof. Charcot's books are of a character, that they should have been within easy reach; and certainly should have been obtained, under any circumstances, and compared, before such a charge was given publicity by these journals. Some of our contemporaries at times seem to be at a loss for powers of judgment; this being a marked illustration.

We present to our readers the letters from Hammond and Charcot, and will be pleased at some future time to give the explanatory communications of the third party, the gentleman who originated the report. The public certainly demand from him an explanation.

HISTORIES OF CASES.

Our large hospitals should serve four purposes, to wit: to afford advantages to the attending physicians and surgeons for study, observation and clinical teaching in a large number of cases; to educate the internes; to give patients who could not otherwise obtain it, the benefits of the highest medical skill, nursing, food and medicine; and to give to the profession at large an interesting and instructive literature. Three of these purposes are served; the fourth, not.

Hospital case records are, as a rule, brief, inaccurate, and uninteresting. When not brief, their length is due more to a redundancy of words, than a plethora of valuable facts.

In many hospitals the history-taking is in the hands of the junior, who is not fitted for the work; in others in the hands of the senior assistant, who has so much else to do, that he cannot perform this work properly. The fault is not that of the interne, but of the men who force him to do it. He lacks both time, and a proper library for reference. Had he both, however, the work would not be perfect unless revised by the attending physician. This revision should be made, moreover, while the case is fresh in mind. Every attending physician or surgeon to these institutions owes it to his less fortunate brethren, to acquaint them with the cases under his care; giving them the histories in a scientific and readable form. They should be brief, yet sufficiently full to canvass all the points of importance. Brevity, in these days of hurry and overwork, is a jewel; brevity at the expense of necessary truth or accuracy, a curse. The truth can be winnowed from a verbose report; from a faulty brief one, never.

The report once made how is it to reach the pro-

fession? They have neither the time nor the opportunity to consult the case books. They cannot afford to buy the various bound volumes of "Hospital Reports." How then? By the publication of these reports, from week to week, in the various reliable medical journals of the country. On purely selfish grounds alone, the visiting physicians and internes will benefit by it greatly. On broader grounds, it will be the only rational fulfillment of a duty that these gentlemen owe to the profession at large.

In closing let us suggest to the board of managers of every large hospital, as a duty they owe to the men who serve them so faithfully and without remuneration:

1. That every hospital shall have a *paid* case clerk, whose duty it shall be to do all the purely mechanical work, as copying, etc.

2. A good library of standard and recent medical works for the use of the internes and visiting physicians.

3. That they make it a rule that histories of the important cases having been reviewed by the visiting surgeon or physician, shall appear in *some* medical journal within six months of the time of the patient's dismissal or death, and

4. That at the end of each year or the beginning of the next there shall appear in some medical journal, a tabulated statement of the cases in their hospital.

ABOUT BOOKS.

The House and its Surroundings. Health Primer.
D. Appleton & Co., N. Y., pp. 96.

Of the health primers that have, thus far, come from the press of the Messrs. Appleton, all of which are excellent, this is perhaps the best, certainly the most practical. It comes, too, at a time when such a work, based on exact knowledge, readable and not beyond the comprehension of the masses, will be largely read and appreciated. A few years ago the only features in the selection of a dwelling that were carefully looked to were the general appearance, the number of rooms and the rent. Sanitary matters are now receiving some attention. In separate chapters are considered: 1. Soil, Situation and Construction; 2. Drainage; 3. Water Supply; 4. Ventilation; 5. Closets, Urinals, Slop-Water, Dust-Bins, Scullery and Sinks; 6. Warming and Lighting; Paint and Paper; 7. Bedrooms, Nursery, Laundry, Kitchen and Larder; 8. Disinfectants, Antiseptics, Infectious and Contagious Diseases; 9. Summary and General Application; 10. Set of By-Laws regarding Privies, Cesspools, etc.

The author has done his work thoroughly and well. His style is good, his matter interesting, and his facts, *facts*. At p. 10 excellent advice is given as to the filtration of water, and the location of the laundry. At p. 11 he very sensibly condemns a

mass of curtains, tapestry, etc., in rooms of limited size, and says, also, "if there are but two rooms, it is better, as a rule, to make a bedroom of the larger, though the reverse is generally done." The garbage and slop-pit near the back-door is severely handled at p. 12. At p. 13 we are surprised that in speaking of ventilating privies the author does not insist on having *two* openings. Earth closets do not seem to have been extensively used or had a fair trial in England. Their merits are undoubted here, both in a sanitary and economical point of view. Five hundred cubic feet of air to the person in a bedroom seems rather stinted; 1,000 in health, 2,000 in disease would be better. The chapter on ventilation is as practical as it is sensible, as also that on water supply. The book is full of good points and could not, we think, be better for the purposes for which it is intended. Physicians will do their patients a real favor by recommending this little work to their perusal. Common sense and preventive medicine are getting their heads a little above water.

CORRESPONDENCE.

AN ACCUSATION SUCCESSFULLY MET.

DR. HAMMOND TO DR. CHARCOT,

43 West 54th St.

NEW YORK, Oct. 1st, 1879.

SIR: In a letter to the *Louisville Medical News* of September 20th, 1879, from one of its editors, Dr. L. P. Yandell, dated Paris, August 29th, '79, I find the following statement:

"Prof. Charcot showed a number of crayons and photographs of rare cases of hysterical epilepsy and other neuroses, and he said one of your countrymen, in a work upon diseases of the nervous system reproduces these in his book, and with my description, but he forgot to mention that they were mine."

The writer then goes on to give his opinion of the "countryman" who has done this thing, in which it is difficult to say whether his ignorance or his malignity predominates.

Now, so far as I am aware, no American author other than myself has reproduced your representations of certain hysterical conditions, and I am forced, therefore, to the conclusion that the language attributed to you had reference to me.

If you did make these remarks allow me to observe that you said what was not true, and not only that, but that you committed a social outrage for which there is no excuse. If, however, as I strongly suspect, you did not express yourself in the way in which you are reported to have spoken, you, equally with me, are interested in exposing the malicious intermeddler who has distorted your expressions.

I write, therefore, to request of you an authoritative declaration on the subject.

In the meantime it may not be out of place for me to ask your attention to certain facts bearing upon the point at issue.

On referring to the "List of Illustrations" in my "Treatise on Diseases of the Nervous System," New York, 1876, p. 13, you will find that due credit has been given you for every illustration taken from your

works. Those to which reference is made in the language you are reported to have used are 97, 98, 101, 104, 105 and 106.

Now, not satisfied with giving credit to you in the proper place as author of the illustrations referred to, I have, in the letter-press, spoken of them as follows :

Fig. 97, page 728, "Charcot cites an instance in which a woman aged fifty-five was seized eighteen years previously with a hysterical paroxysm followed by paraplegia and contraction. The extensors and abductors, as will be seen from the accompanying wood-cut (Fig. 97), are the muscles mainly affected."

Fig. 98, page 744, "A still more remarkable case is given by M. Charcot. The patient, a woman, had been for at least four years the subject of contraction of one of the lower extremities, as shown in the wood-cut, (Fig. 98)."

Fig. 101. This figure I have taken from M. Bourneville and have credited it to him (Louise Lateau, etc., Paris, 1875, p. 13), both in the "List of Illustrations," and on page 759. It may, however, be yours, as the case occurred in the Salpêtrière; but, if so, I respectfully submit that it is with M. Bourneville you should find fault, and not with me.

Figs. 104 and 105. In reference to these illustrations I say (page 768):

"No one has written with greater effect in regard to the manifestations of hysteria and hystero-epilepsy than Charcot, and I cite from him the following instance: [*Leçons sur les maladies du système nerveux faites à la Salpêtrière*, Paris, 1872-73, p. 301 et seq. (foot-note),] already referred to in another connection under the head of ecstasy."

Fig. 106, p. 771, "In further illustration of the period of contortions in her case I take from M. Bourneville's excellent monograph the accompanying wood-cut (Fig. 106), made from a sketch taken on the spot by M. Charcot."

It, therefore, appears to me, and I think every unprejudiced person will agree with me, that in all these instances (and the same is true of every other that occurs in my work) I have given all proper credit. Certainly as much as you have given to M. Meynert and M. Duret for the cuts you have taken from them and inserted in your valuable "*Leçons sur les localisations*," etc., and more than you have awarded to M. Ecker, whose figures 2, 3 and 4 you have transformed (without other alterations) into Figs. 12, 13 and 14, without, so far as I can find, a word of acknowledgment.

I shall await your answer with interest, and am, in the meantime,

Very respectfully,
Your obed't servant,
WILLIAM A. HAMMOND.

PROF. J. M. CHARCOT.

DR. CHARCOT TO DR. HAMMOND.

[Translation.]

PARIS November 9th, 1879.

Sir and Very Honored Colleague:

I have the honor to inform you that I have addressed to Professor Yandell, a letter, which I have requested him to publish as soon as possible in the *Louisville Medical News*, and you will find there, I

hope, all the explanations you can desire relative to the regrettable incident you have brought to my knowledge.

But while awaiting the publication of that letter, I desire to say to you, honored colleague, that I never had the idea of complaining, of the to me, very honorable use you made of my "*Leçons sur les maladies du système nerveux*." I have known too well your very estimable work, which I have read and re-read before it was translated into French, not to be aware that all the plates and figures which are there reproduced from my "*Leçons sur les maladies du système nerveux*" are in the text very exactly attributed by you to their proper origin. If therefore, our very honored colleague, Professor Yandell, has understood me to express a contrary opinion when I had the opportunity of explaining a few words with him of which I have not retained the exact recollection, it must be ascribed to a misunderstanding for which I must blame myself, and which is doubtless due to my imperfect knowledge of the English language.

I beg you sir, and very honored colleague, to believe in the sincere esteem in which I hold your writings and to accept the assurance of my most distinguished consideration.

CHARCOT.

PARIS, 17 Quai Malaquais.

SELECTIONS FROM JOURNALS.

IMMEDIATE AND PERMANENT TREATMENT OF DISEASE.

Dr. Milner Fothergill read a paper on this subject, before the Harveian Society of London, in which he pointed out how in many cases the treatment which gave immediate relief was not that to be continued in the permanent interests of the patient. He instanced first the free use of opium in the hacking cough of phthisis, and in chronic bronchitis, which gave immediate relief, but did harm eventually. Then, in the diarrhoea due to impacted masses in the rectum, astringent mixtures might give immediate relief, but they were not curative, while removal of the masses was. So, too, in neuralgia, the injection of morphia eased the pain for a time, but, if continued, was more likely to confirm it than to cure it. Likewise in dyspepsia, of reflex origin, its cure depended upon the removal of the exciting cause. In gout, the application of cold, or of leeches, give instant relief; but he quoted Garrod in illustration of the evil consequences which followed such treatment. But of all instances of the conflict betwixt the present and the permanent treatment of disease, that furnished by endocarditis was, he said, the most striking. It was the rule to give tonics as soon as possible, and to get the patient up; but, he contended, the proper plan of treatment was to keep the patient flat in bed for some days after all evidence of active mischief had passed away. The growth of connective tissue in the valve-curtains, which was lighted up by the inflammatory storm that passed over the endocardium, persisted some time after the endocarditis itself was over; and it was the mutilation, caused by the contraction of the neoplasm, which was chiefly to be dreaded. Conse-

quently, the true line of practice was to reduce the strain upon the inflamed valve-curtains by complete rest, and the administration of agents which lowered the blood-pressure within the heart and arteries. The more the connective tissue growth could be limited at the outset, the less the future mutilation of the valves.—*Brit. Med. Jour.*

TWO CASES OF CHANCRE OF THE LIP, PROBABLY ACQUIRED THROUGH CIGARS. BY L. DUNCAN BULKLEY, A.M., M.D.

Since the fact has been conclusively established that the syphilitic poison may be conveyed by other means than venereal contact, instances have been reported of almost every conceivable method of communication, including even that by means of tooth-brushes, dental instruments, and toys, as well as by vaccination, circumcision, and tattooing, also in surgical examinations and operations, and from the promiscuous use of implements, as glass-blowers' pipes, etc., etc. With a poison so subtle and powerful, and so abundantly secreted from the many diseased mouths on all sides, and thus so almost omnipresent, the only wonder is that there are so few instances of the non-venereal communication of syphilis. While cases are on record where the poison has been conveyed by means of smoking a pipe used by one suffering from syphilis, I am not aware that any have yet been reported where cigars have been the method of communication. The two following instances are therefore of interest and value, inasmuch as both occurred in educated physicians, who had given very much study to their cases, and therefore the certainty of eliminating other methods of contagion was very greatly increased.

Several years ago a case found its way into the secular newspapers, where a young girl (in Connecticut, I believe) was found to be making cigars while suffering from constitutional syphilis. Her lips were covered with freely secreting mucous patches, and she was in the habit of finishing the cigars by moistening the ends in her lips to make the sharp point; this she continued to do for some weeks, until the severity of the pain caused her to cease and she came under the care of a physician.

A very similar case has been under my care at Demilt Dispensary within the past year. A young man, cigar-maker by trade, consulted me on account of the soreness of his mouth and tongue, which were found to be the seat of very extensive mucous ulcerations, and while he was under observation a very characteristic pustular syphiloderm developed, together with adenopathy, alopecia, etc. Remembering the case of the girl just mentioned, I questioned him in regard to the process of manufacture of the cigars, and he acknowledged to his using his saliva to moisten the end to complete the point. As is well known, this is not the universal method of procedure, and of course is discountenanced by manufacturers, and I believe that gum tragacanth or flour paste is provided for the purpose, but I have myself repeatedly seen employes moisten the end of the cigar in the mouth in finishing the tip.

The following are the cases:

CASE I.—Dr. J., aged 33, an active practising

physician in a neighboring city, consulted me, Oct. 26, 1877, on account of an obstinate sore on the upper lip, which gave him much annoyance. Six weeks previously he first began to notice an ulcer on the left side of the upper lip, on the vermilion surface, and two weeks later the right side became sore. This had persisted since in spite of varied remedies, none of them, however, of an anti-syphilitic character, as the true nature of the diseased surface had not been hitherto recognized, although he had seen a number of physicians around him, and also those in a neighboring city.

On the left side of the upper lip there was an oblong ulcerated patch thirteen millimetres (half an inch) long by eight millimetres (one third of an inch) wide, with a clean, red surface, secreting a small amount of sticky fluid, and with a very decided hardness. Upon the right side of the lip there was another patch of ulceration, presenting somewhat the same features, rather smaller, with a white patch running from it to the corner of the mouth. There was also mucous patches on the roof of the mouth and on the right tonsil. The sub-maxillary glands were enlarged and painful, no other adenopathy was found. Upon the arms and back there were already a faint macular eruption. He stated that for the previous two weeks he had been having general rheumatic pains and malaise, and had lost flesh of late. There was absolutely no sore on the penis or elsewhere, nor had he ever had such.

The diagnosis of chancre of the lip was made; at the urgent request of a friend he consulted Dr. F. N. Otis later the same day, who made the same diagnosis, without knowledge of his having seen me previously.

Being a married man, with two children, he was exceedingly anxious in regard to his lip, and much time was spent investigating the possible modes in which the sore might have been acquired. He claimed entire innocence in regard to any venereal origin of the trouble; he certainly had not kissed any one outside of his own family for a long time. Three months previously he had examined a patient with a sore on the penis, and remembered being anxious about a scratch on his finger, but this healed readily and gave no further annoyance. Since that time he had not seen a patient with primary syphilis. He had not smoked a pipe for months, and never smoked that belonging to another, nor was in the habit of having others smoke his.

He was, however, a great smoker of cigars, and had consumed a quantity of those made in this country. Remembering the case of the girl first cited, and considering that there must be other cigar-makers in similar condition, we concluded that the poison had been conveyed by means of the cigars, although, of course, it was impossible to trace it to the particular source whence it emanated.

He was placed upon half a grain of the green iodide of mercury morning and night; in less than a week the sores showed manifest improvement, and in four weeks, or possibly less, every trace of them was gone. The rheumatic pains ceased at once and he gained in flesh and strength.

CASE II.—Dr. F., æt. 40, consulted me, July 4, 1879, for a sore situated in the middle of the lower

lip, which gave him considerable annoyance and refused to heal. The history was as follows:

For ten or fifteen years he had had a fissure in the middle of the lower lip, which, while it would sometimes heal over for several weeks, would still persist as a crack of greater or less size; it had never before taken on any ulceration or given any great annoyance other than that incident to such a fissure.

Six weeks previous to his visit he noticed that the fissure was more painful, and that it discharged serum, which it had never previously done, however much irritated, and he was obliged to wipe it off frequently. Two weeks later the glands beneath the right angle of the jaw became enlarged, and subsequently those in front, beneath the jaw.

Recognizing a new feature in his lip trouble, and fearing lest in some manner he had acquired syphilis, he applied freely a solution of chromic acid, one hundred grains to the ounce, very soon after he noticed the secretion. Some days later he cauterized it with nitric acid, and began to take a little bichloride of mercury and iodide of potassium. The application but irritated the lip, and it did not heal, and he was persuaded by a number of physicians who saw him that the sore was not syphilitic, and discontinued the internal medication. Three weeks later, June 15, it had reached its greatest size, that of a large thumb-nail, the lip was swollen, hard, and painful, and the glands under the right angle of the jaw made a mass as large as a goose-egg. He then began treatment again, and in a week the ulcer began to close in on the edges.

Three weeks previous to his visit, and just before commencing the specific treatment the second time, he discovered a small ulceration on the penis, which healed readily after cauterization with nitric acid. This was probably due to inoculation from the sore on the lip, which had been greatly irritated by the ineffectual efforts to heal it by means of the chromic and nitric acids.

About ten days previous to his visit, and when the lip began to heal under treatment, an eruption made its appearance, first upon the scalp, then on the forehead, and spread thence over the face and most of the body and limbs. Three or four weeks ago, before commencing treatment the second time, he had feverishness and malaise and could not sleep.

On examination the lower lip was found to be the seat of an ulcerated mass of nearly circular form, about thirteen millimetres (half an inch) in diameter, situated a little to the right of the median line, with a distinctly marked margin, now healing; it had a granulating base, giving off a serous secretion, and bleeding quite readily. There was no great amount of hardness, as he had been under mercury for some time, and the swelling of the lip had largely gone. There was still marked adenopathy, both at the right angle of the jaw and in the middle beneath. The face was thoroughly sprinkled with a most characteristic papulo-erythematous eruption of syphilis with more or less of the same in the scalp and scattered over the entire body and limbs.

No doubt could be entertained in regard to the diagnosis, and the sore on the lip was unhesitatingly pronounced a chancre, although the doctor was utterly unable to account for its presence. Although

in times past he had lived a somewhat free life, he certainly had not had any venereal exposure for many, many months. He had certainly not smoked any one else's pipe, nor had any one smoked his, which he used very seldom. He was, however, a considerable consumer of cigars, and upon questioning narrated a circumstance which might have a very important bearing on the case.

About three months previous to his visit he had had as a patient the son of a cigar maker, with sores on the penis. In gratitude the young man would, from time to time, hand him cigars of a very fine quality, desiring him to smoke them. At the time he thought of the danger of contagion, and is of the impression that he smoked them in a cigar-holder, but of this he is not positive. Very careful investigation failed to reveal any other possible or probable means of acquiring the chancre, the patient being a physician of uncommon intelligence and clearness, and we were forced to the conclusion that the poison was conveyed on the cigars, possibly transferred from the patient's hands, or possibly lodged there in process of manufacture by the patient or other person. In conversing with a large manufacturer of cigars upon this subject, he expressed himself as not at all surprised that such inoculation should take place, for he said that those employed in making cigars were of the dirtiest class, and were continually in the habit of putting the fingers to the mouth during their work; also not being at all careful to wash, that they could readily convey the poison from the genital parts to the cigars which they manufactured.

It is not long since the existence of syphilis in a patient was sufficient to condemn him of unlawful sexual intercourse, and many have doubtless been thus falsely charged who were as innocent in the matter of contracting the disease as are those who acquire the smallpox instead of the pox proper. Each additional method of communicating the disease which is demonstrated, therefore, lightens by at least one stone the crushing weight which would otherwise rest upon every unfortunate sufferer from this dire malady if it were supposed that it could be acquired only by venereal contact.

On the other hand, the knowledge that so potent and terrible a poison exists so extensively, and that it may attack the most innocent, as in vaccination or nursing, or even in the unsuspecting kiss of a near relative, or in the quiet enjoyment of a cigar, should put both the profession and laity greatly on their guard, and should place syphilis among the contagious diseases which should be under the surveillance of the officers of the public health. It should also cause the wilful or careless propagation of the disease to be placed among punishable crimes.

The methods of prophylaxis in reference to contamination through the medium of cigars are self-evident. The careful use of the holder will prevent the catastrophe, or the same may be accomplished by enveloping the end of the cigar in a bit of paper; but even the process of wetting it for either of these might convey the poison from a cigar well charged to a fissure lip, or to one affected with cold sores or abrasions. Care should therefore be exercised, especially when such avenues of entrance exist.—

DEATH FROM TETANUS INDUCED BY A HYPODERMIC INJECTION.

An inquest was held by the coroner for the city of Dublin last week, on the body of a governess, aged about fifty-six years, whose death was attributed to the above cause. From the medical evidence adduced, it would appear that the deceased for years used to inject morphia herself subcutaneously, for the relief of neuralgia arising from bad teeth; and that the habit grew so upon her, that when suffering from this neuralgia her usual habit was to use twenty grains of morphia in the twenty-four hours. On the morning of the 10th ult., she had used twelve grains of morphia in one injection. Symptoms of tetanus showed themselves on the 12th, and were fully developed on the 14th. Dr. Austin Meldon, Surgeon to Jervis Street Hospital, who was called to see the patient, had her removed from her lodgings for convenience of treatment to his hospital. He was of opinion that the cause of the tetanus must have been the injury of some nerve by the needle in the self-administration of the injection on the 10th. From the 13th to the 17th she was unable to swallow, but she recovered that power two days before her death on the 20th ult. Dr. Meldon deposed that the front of the body of the deceased was covered with innumerable scars from the punctures caused by the hypodermic needles; in fact, it was just as if she had been tattooed. He also stated that there was no case on record of such a large quantity of morphia ever having been used at a time as this lady had used. Two or three years ago, a case, he said, of death from tetanus produced by a wound from a subcutaneous injection, occurred in London; but in that case the dose was only two or three grains. He also knew of two other cases of lock-jaw produced in the same way. The jury found that the deceased died in consequence of traumatic tetanus supervening on a wound caused by the needle of a subcutaneous injection machine which deceased was in the habit of using, and that her death was the result of misadventure. This case is of much interest as bearing on the recognized possibility, as stated by Dr. Meldon, of the wound caused by a hypodermic injection inducing tetanus. We do not know of the particular case occurring in London alluded to by Dr. Meldon, or of the other cases he mentioned; but in the *Lancet* of July 6th, 1867, three cases are referred to of death from traumatic tetanus after the hypodermic injections of sulphate of quinine; and in the same journal (December 16th, 1876, p. 873), the case is reported of a lady who died at Southsea of well marked tetanus after the use on herself of hypodermic injection of morphia, given, it was supposed, with a rusty needle. With reference to this particular case, attention is directed to the symptoms resembling those of tetanus sometimes caused by morphia itself. In Dr. Meldon's case, however, this effect of morphia could not apparently have been in force, as he continued the injection of one grain of morphia when the patient was attacked with the tetanic spasms with instant relief to them. Like many other cases reported in this *Journal*, the case is also a sad illustration of the result of its being in the power of the public to obtain—as it would appear this unfortunate lady did—unlimited

repetitions of the same prescription for a deadly poison from several different chemists on the same day.—*Brit. Med. Jour.*

Referring to this case, Dr. J. O'Flanagan, of Durham, writing to the *Medical Press and Circular*, which also contained a report of this case, says:

SIR:—I think the above title of the case reported in your last issue does not accurately express the nature and cause of the malady from which the patient died. I am of opinion that the neuralgia caused the tetanus, and that the morphia injections, so largely used, "staved off" for a considerable time the "evil day" from the poor patient, who finally gave in to the blood disorder, and the tetanus therefrom. I am led to believe this from my remembrance of a case of trismus in a young woman (rheumatic) which I treated successfully, five years ago, with hydrate of chloral, Fleming's tincture of aconite and bromide of potassium, and with chloroform inhalations. At the time I did not deem the case of sufficient importance to publish; but having very recently succeeded in saving a bad case of traumatic tetanus in an interesting little girl of nine years old by the same means, I intend shortly to collect my notes of the first case, and to publish both cases together, with your permission, in the columns of the *Medical Press*.

STONE IN THE BLADDER OF A PATIENT EIGHTY-EIGHT YEARS OLD; BIGELOW'S OPERATION; SUCCESS PERFECT; By W. F. TEEVAN, B.A., F.R.C.S.

On September 9th, in consultation with Dr. Kempe, of Ladbroke-grove-road, I saw Colonel —, eighty-eight years of age, who served throughout the Peninsular war. From notes taken by Dr. Kempe, it appeared that the patient passed two calculi many years ago. For a long time he had occasionally suffered from pain in the loins, and had seen red gravel in his urine. One year ago the gravel ceased to appear, and he began to be troubled with a frequent desire to micturate, and to have a dull chafing pain in the perineum. Now and then he saw a little blood in his urine. Latterly his pains had increased, and the water had become very thick and offensive. For the past three months he had been confined to bed. During the last few weeks he had become very excitable and unmanageable. He could get but little sleep at night, as he was so frequently troubled to urinate.

When I saw him he was greatly agitated and in much pain. I introduced a very slender, short-beaked Mercier's sound, which struck a hard stone immediately it entered the bladder. The third lobe of the prostate was enlarged, but the lateral lobes were of normal size. The patient was of middle height, and decidedly muscular; and although his face was haggard from pain and want of rest, its appearance was nevertheless healthy, and his eye was clear, bright, and piercing. He was born at Beverly, in Yorkshire, the county which is reputed to produce the strongest men and the best horses in England. His mother was a native of Cambridgeshire, but he did not remember where his father was born.

When the Colonel was informed of the nature of

his malady he urgently demanded an operation. I submitted a specimen of his urine to Dr. George Harley for examination, who reported that there was no evidence of any renal disease. Dr. Thorowgood examined the patient's heart and lungs, and informed me that there was nothing to contra-indicate an operation. Dr. Kempe and I then told the patient's relatives that an operation for the removal of the stone could be undertaken with a fair chance of success. They readily consented to what the patient so urgently desired. On September 13th, at 2 P.M., the patient was put under the influence of ether by Mr. T. G. Alderton. There were present, Dr. Thorowgood, Mr. Butlin, Dr. Kempe and Dr. Hubbard. In the space of twenty minutes I completely pulverized and evacuated a lithic-acid stone, measuring one inch and a quarter by one inch. The calculus was excessively hard, and the noise produced by breaking up even the smallest fragment was audible to all present. I used three lithotrites, introducing them eight times in all. The evacuating tube, No. 26, which slipped in with ease, was passed three times. The patient was sounded by Mr. Butlin, Dr. Kempe and myself, but not a particle of stone could be discovered. There was a little blood lost at the operation, and for four days afterwards the urine was sanguineous. Much smarting was experienced for forty-eight hours whenever the water passed, but it was entirely confined to the penile urethra, and on no occasion was there the slightest pain or tenderness in the hypogastric region. The variations in the pulse and temperature were taken twice daily by Dr. Kempe. The highest temperature recorded was at 6 A.M., on September 15th, when it reached 101°, the pulse being 98. The patient's progress after the operation was one of gradual improvement. The urine began to clear on the fifth day; the nights were good and the appetite keen; and on September 24th he left his bed, to which he had been confined for three months. Five days later he went for a drive.

I last saw the Colonel on October 4th. He was then absolutely free from all pain, and was very cheerful and happy. He could hold his urine for four hours, and got a good night's rest. The urine was clear, and there was no phosphatic deposit. Dr. Kempe, in his letter to me dated October 11th, states that the patient says "he feels better and stronger than he has done for many years, and his sight, which was very bad, has considerably improved since the operation."—*Lancet*.

A BONE IN THE LARYNX FOR EIGHT MONTHS—SPONTANEOUS EXPULSION AND RECOVERY, BY E. F. INGALS, M.D.

Mr. S. E., æt. 46, single, cook, applied last January at my clinic for diseases of the chest and throat, in the Central Free Dispensary, in consequence of hoarseness, dyspnoea and spasmodic cough.

An examination with the laryngoscope revealed a state of general congestion of the larynx with a diffused swelling about the size of a hazelnut, involving the right ventricular band, aryepiglottic fold and right half of the posterior wall of the pharynx. The throat was so sensitive that a thorough examination was impossible.

Local astringent applications were made, and anodynes were given to relieve the severity of the cough, and chlorate of potassa was freely administered internally. After three or four weeks, the swelling continuing, and a hard external swelling also appearing over the right side of the larynx, it was thought best to place the patient on anti-syphilitic treatment, as his history pointed to a specific origin for the laryngeal trouble. The patient seemed to improve on this treatment, but after a few weeks the difficulty with his throat increased, and as he was not able to work and had no home, he was sent to the Alexian Brothers' Hospital, where he was under the care of Drs. Baxter and Hooper.

The external swelling was opened, but discharged little; the opening, however, did not heal. The patient left the hospital for a time, but soon, returned again, and nearly all the time until July, continued to take iodide of potassium, and occasionally tonics, until the 29th of the month, when, during a spasmodic cough, he expectorated a fragment of bone which seemed to be part of the clavicle of a barn-yard fowl. The bone was an inch and a quarter in length and quite sharp at one of its extremities.

The patient gave no history of having swallowed a bone, and he has not the slightest recollection of the accident. After the expulsion of the bone, the external wound in the neck promptly healed, the coughing ceased and convalescence was established so that the patient was discharged in a few days.

I saw the patient ten days after the bone had been expelled, and found him in perfect health, with no evidence of his former disease excepting slight induration about the external cicatrix, and a diffused swelling of the right half or two-thirds of the posterior pharyngeal wall and slight swelling of the right side of the larynx.

The bone must have lodged in the pharyngo-laryngeal sinus of the right side, in which position foreign bodies of this character, as pins, fish-bones, etc., are very apt to be entangled. It is not singular that the bone remained so long, but it seems almost incredible that a person should get a foreign body of its character into the throat without any knowledge of the accident.—*Chicago Med. Jour.*

HEREDITARY VARIATION IN THE RADIAL ARTERIES—By J. SCHNECK, M.D.

The following diagram is the result of an examination of the radial arteries of Mr. J. W. Brown and his family, and is such a remarkable example of hereditary transmission of an anatomical peculiarity that I cannot forbear asking space in the pages of the *Journal and Examiner* to publish it:

In the normal condition the radial artery passes along the inner side of the supinator longus muscle; on arriving at the wrist, "it winds backwards, round the outer side of the carpus, beneath the extensor tendons of the thumb;" but in the members of this family, consisting of grandfather, children and grandchildren, 22 in all; in 15, one or both radial arteries take an abnormal course. Out of 44 arteries the same abnormal course is taken 19 times. Four times both arteries are abnormal, seven times both

are normal. Twice the right only is abnormal and nine times the left only is abnormal.

The deformity is similar in all the cases. The artery takes the usual course within 3 to 4 centimeters of the wrist (according to the length of the arm), when it suddenly turns backwards over the supinator longus muscle, passing on the outside of the extensor tendons of the thumb and above the styloid process of the radius, thence behind the thumb into the palm, to form the palmar arch, etc. Grand-mother, daughters-in-law and sons-in-law all normal.

GRANDFATHER.	CHILDREN.	GRANDCHILDREN.
G. W. Brown, Sr., both abnormal, and very crooked.	Mr. J. T. Brown, oldest child, left abnormal.	O. F. Brown, right abnormal. A. P. Brown, both normal. J. E. Brown, both abnormal. M. E. Brown, both normal. H. F. Brown, right abnormal. Willie Barnette, left abnormal. Junia Barnette, left abnormal. George Barnette, both abnormal. Gertrude Barnette, left abnormal.
	Mrs. Barnette, second child, left abnormal.	Has no children.
	Mrs. Ameter, third child, left abnormal.	Has four children, all normal.
	Mr. F. S. Brown, fourth child, left abnormal.	C. P. Brown, both abnormal.
	Mrs. G. W. Brown, fifth child, left abnormal, (married a man whose name is Brown.)	M. F. Brown, both normal.
	Mr. G. W. Brown, Jr., sixth child, left abnormal.	Has no children.

Observe that in "children" the left artery only is abnormal. Observe also in the family of Mr. F. S. Brown, who has four children, but none have the abnormality, in his own case the left is abnormal.—*Chic. Med. Jour.*

NEWS ITEMS AND NOTES.

One of the advantages of having a telephone in one's house was demonstrated by the experience of a physician of this city a few evenings ago. He was aroused during the night by a summons through his telephone to go at once to the house of the caller, who stated that his child had croup and was coughing violently. As the house was several miles distant, and the doctor very tired, he requested the father to hold his child for a few moments before his telephone. This was done, and the practiced ear of the physician at once convinced him that there was no fear of true croup. After informing the father of this, and giving the necessary directions regarding the management of the patient, the doctor again retired. When he saw the infant the next morning all symptoms of laryngismus stridulus had disappeared, and the child was apparently quite well.—*Cin. Lancet.*

Under the name of *Droit des Pauvres, l'Assistance Publique*, the administration of Paris hospitals levies a tax upon theatres, balls, and concerts; and that, not upon their profits, but upon their gross receipts. It has only just published the account of what it received in 1878. The amount was close upon £160,000 sterling. This was chiefly owing to the

great influx of foreigners and country cousins during the exhibition; and this year the estimates are only £109,000. There has been much agitation for the repeal of this tax; but there does not appear to be any intention of interfering with it in any way, as it figures for this same sum in the budget of 1880, which has just been submitted to the Paris town council.

A severe epidemic of cholera is reported to be raging in Japan. The outbreak is attributed to the opening, in April last, of the graves of a number of soldiers who died of the disease in 1877. Up to the end of August, 40,000 fatal cases were recorded; and 100,000 deaths are believed to have taken place up to the end of September.

Medical Uses of the Carrier Pigeon.—Dr. Harvey J. Philpot, in a letter to the London *Daily Telegraph*, writes as follows:—

"I have made valuable use of the carrier or homing pigeon as an auxiliary to my practice. So easily are these winged 'unqualified assistants' reared and trained that I am surprised they have not been brought into general use by the profession I belong to. My *modus operandi* is simply this. I take out half a dozen birds, massed together in a small basket, with me on my rounds, and when I have seen my patient, no matter at what distance from home, I write my prescription on a small piece of tissue paper, and having wound it round the shank of the bird's leg I gently throw the carrier up into the air. In a few minutes it reaches home, and, having been shut up fasting since the previous evening, without much delay it enters the trap cage connected with its loft, where it is at once caught by my gardener or dispenser, who knows pretty well the time for its arrival, and relieves it of its dispatches. The medicine is immediately prepared and sent off by the messenger, who is thus saved several hours of waiting, and I am enabled to complete my morning round of visits. Should any patient be very ill, and I am desirous of having an early report of him or her next morning, I leave a bird to bring me the tidings. A short time since I took out with me six pairs of birds. I sent a pair of them off from each village I had occasion to visit, every other one bearing a prescription. Upon my return I found all the prescriptions arranged on my desk by my dispenser, who had already made up the medicines."

SPECIAL NOTICE.

Non-Subscribers, who receive this number of THE GAZETTE, and are favorably impressed with the character and object of the publication, should at once remit the amount of a year's subscription. We cannot undertake to supply back numbers, either now or in the future, as we send out our entire edition each week. We ask every member of the profession who receives this number, to give THE GAZETTE a trial for one year, and feel that all who favor us by so doing, will certainly continue their subscriptions thereafter. All we ask is a trial.

LECTURES.

CLINICAL LECTURES ON VENEREAL DISEASES.

Delivered at Charity Hospital, Blackwell's Island.

TO THE STUDENTS OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK, SESSION OF 1879 AND 1880.

BY

F. R. STURGIS, M.D.,

Clinical Lecturer on Venereal Diseases in the University, Surgeon to Charity Hospital, Department of Skin and Venereal, etc., etc.

(Reported for THE HOSPITAL GAZETTE, and Revised by the Lecturer.)

LECTURE II.

COMPLICATIONS OF CHANCROID

GENTLEMEN:—At our preceding meeting we studied the chancroid in its simplest and most classical form, without considering any of its complications. To-day we will, if you please, take up these and the treatment together.

The first and the one most intimately associated with the chancroid, is the bubo or swelling of the glands, usually those of the groin. This is due to two causes; the first being sympathetic inflammation, the second and most serious, absorption of the chancroidal matter from the ulcer, by the lymphatics.

The two subjects I bring before you illustrate these points most beautifully. This first one has, as you see, a large indolent brawny swelling in his right groin, and upon his penis he still bears a chancroid, but in the stage of repair. Number two also has a chancroid seated close to and invading his frænum, but in his groin we find a different condition of things to what we did in number one. Here we find an open ulceration presenting an uneven, grayish floor, wasted and undermined edges, and secreting an abundant amount of pus, recalling to mind the characteristics of the chancroid already presented to you. Indeed, you would be right to call it a chancroid, for such it is; caused by the absorption of the chancroidal matter through the chain of lymphatics, and deposited in the nearest glands (in this case the inguinal), there to produce a similar condition of affairs to what obtains in the original ulcer. In other words, you have here a typical chancroidal bubo, pure and simple. These two, then, represent the varieties of bubo found with a chancroid, the first one, a bubo from sympathy, which frequently does not suppurate, and if it does, furnishes *laudable healthy pus*; the second one, the true chancroidal bubo, due to absorption of the matter from the ulcer, which *invariably ulcerates and presents subsequently the appearance of a chancroid; indeed, is a chancroid.*

There are two points, gentlemen, to which I wish to call your attention: the diffused brawniness of the surrounding tissues in both cases, and the side of the body upon which the buboes are seated.

The glands themselves do not seem to be the only parts affected, the circumglandular tissue is involved as well, thus presenting a thickened doughy mass in which the glands can be indistinctly felt. Note this well, I pray you, for when you come to handle cases of syphilis you will find a very opposite condition of things there; the glands will not be fused together nor with adjacent tissue, but they will be *distinct, well marked and indurated.*

The other point is this. In the second case the bubo is seated upon the groin opposite to the side of the penis upon which the chancroid is; in number one upon the same side. The cause is the position of the ulcer. Deduce then the following rule:—*Buboes are usually seated upon the same side of the body as the ulcer which causes them, except when it (the ulcer) is seated upon the frænum, when they will be frequently found upon the opposite side. The same is true when the chancroid in the female is seated upon the "fourchette," and this is due to the decussation of the lymphatics at these two points.*

In all the cases I have shown you the lesion has been seated upon the mucous membrane of the genitals. This is its usual seat, but it may be met with upon the skin of various parts of the body, such as the face, the fingers and—as I have seen in one case—in the throat. Such places are not common seats of the chancroid, so you may always suspect the nature of a sore when located in the parts I have just mentioned, it is much more likely to be *syphilitic*; at any rate always bear that point in mind.

The course of a chancroid is always *destructive*, and if not properly treated may result in severe disfigurement and loss of tissue.

This is especially the case when the chancroid is seat ed upon the frænum or in the urethra just within the meatus urinarius. In the former place, perforation and destruction of the frænum is to be looked for and what will perhaps surprise you is a greater loss of tissue than you had at first counted upon, for here particularly the burrowing tendency of the chancroid is shown and long before the frænum is ulcerated through, the sore has attained to large dimensions. In the latter place (the urethra) the sore extends rapidly, is difficult of treatment from its comparative inaccessibility, and upon cicatrization produces partial stenosis of the meatus, requiring subsequent surgical treatment.

As I have already stated, these ulcers have a tendency to spread and from their facility of auto-inoculation, to multiply, hence the treatment to be effective must be *prompt and thorough*. Under proper care the copious purulent secretion is diminished, the gray floor disappears, granulations spring up over the surface of the sore and the undermined edges fill up with the walls of the ulcer. But, gentlemen, bear this point in mind: *a chancroid is dangerous up to the very moment of its complete cicatrization; no matter how superficial or simple it may look do not remit the thoroughness of your treatment until cicatrization is complete.* I have seen chancroids almost well relapse (without a fresh infection) from just that want of care, the slight discharge remain-

ing was sufficient to re-inoculate the almost cicatrized sore.

Phagedena is another and perhaps the worst accident which can attack a chancroid, and when it becomes serpiginous, that is when it extends in one direction while healing in another, may last for a long time (several years) and seem well nigh hopeless of cure. It fortunately is not common in this section of the country, at least, and occurs in those persons whose health is broken down from alcoholic excesses or constitutional debility, such as scrofula and the like. Remember, gentlemen, it is due to *constitutional not local causes*, and to combat it successfully you must take your measures accordingly. This grave accident attacks not only the chancroid itself but the chancroidal bubo, lasts for an indefinite time and will put you to your trumps to cure.

Before passing on to the consideration of treatment there are other complications to which I wish to direct your attention, to wit: phimosis occurring with chancroid and chancroids of the anus. You already know that the first of these complications occurs with syphilis and gonorrhœa, as well as with chancroids, and it is important for you to be able to know which one of these diseases lurks behind the constricted foreskin, not only for the diagnosis, but for treatment. In cases of clap and chancroid there is a copious purulent secretion from beneath the prepuce, but in *gonorrhœa* this matter is *not auto-inoculable*, while in *chancroid* it is. With a chancroid the penis is much more painful, œdematous and swollen, and the lymphatics on the dorsum penis are more apt to be inflamed and tender than is the case in gonorrhœa; *but the crucial test is auto-inoculation*. If the hidden ulcer be an initial lesion the secretion is *very scanty*, if indeed there be *any*; the prepuce is *hard and indurated* instead of being *œdematous and doughy*, and the *secretion is not auto-inoculable*.

Chancroids of the anus are in the male subject very rare indeed, and where you find them always suspect sodomy, and I believe you will seldom be wrong. The same is still more true as regards the initial lesion of syphilis (chancre.) But with women it is different. With them anal and rectal chancroids are not rare, and their presence does not imply *Venus præpostera*. The secretion from the chancroids of the female genitals naturally flows over the perineum and anus; very few feminine ani but are abraded; auto-inoculation occurs, and lo! the thing is done. Yes, gentlemen, and a very nasty thing too. The ulcer extends in all directions, eats through and neutralizes the action of the sphincter ani, producing incontinence of the bowels; burrows up into the rectum; is continually irritated by retained fecal matter; is extremely difficult to heal, and when it finally does nearly always leaves a stricture of the rectum behind it; and if to that you add phagedena, a not infrequent complication in broken-down harlots, the picture is a pretty dismal one.

Chancroids of the female genitals differ in no essential respect from those of the male in appearance or course. Their usual seat is at the vulva and introitus vaginæ; they are next most frequent on the cervix uteri, and are very rarely met with in the vagina between these points.

Buboes in women are not so common as in men, excepting when the chancroid is seated at the "fourchette," when they follow the same course of action as that already detailed in the early part of this lecture.

[To be continued.]

ORIGINAL ARTICLES.

LITHOTOMY.—CASES FROM HOSPITAL LIFE.

(A Paper read before the Knox Co. Medical Society at Mt. Vernon, Ohio, Dec. 10th, 1879.)

BY

DR. LEVERETT S. KELSEY,

Resident Surgeon Good Samaritan Hospital, Cincinnati, Ohio.

Mr. President and Gentlemen:

When the pleasant task was imposed upon me of being appointed essayist for this meeting, I felt uncertain as to the manner in which I could best perform the duties of the office.

In most departments the harvest has been stored, and little remains to be gleaned or garnered, which could possibly be compared to the sum total of knowledge already in man's possession; and, at the risk of being thought to have entered upon ground already explored, I shall endeavor to present you with several cases, which I trust may prove as interesting and entertaining to you, as they have been instructive to me. Knowing full well that long drawn out "case" histories are tedious, it shall be my aim to present mine in the briefest manner possible.

The operation which I shall consider is, literally, almost "as old as the hills," and, like them, the history of the operation is "graven in stone." It has been applied alike to the peasant, the artisan, and the wearer of a crown.

I refer to that operation mentioned in the "Hippocratic Oath," which that grand old master required his pupils to abstain from, viz.:

LITHOTOMY.

This operation in olden times was undertaken only in the spring. At this season patients would assemble in the hospitals, where the lithotomists would come to operate upon them, as they did in former times. So do they to-day. It has been my fortune to see seven cases "cut for stone" within the past nine months.

I will give an outline sketch of six of the cases occurring in this hospital (Good Samaritan, Cincinnati), the seventh one being a private operation at which I assisted, in Newport, Ky.

CASE I.—Jos. Young, æt. 45 years, col., weight 212 lbs., owing to the depth of the perineum the finger could not reach the staff. The incision was then enlarged, prostrate cut entirely through, stone caught, and after ten minutes manipulating was extracted—size that of a hen's egg. Weight 5 ij—3 vij, variety—uric acid. Died on the fifth day of exhaustion.

CASE II.—Owen Miller, æt. 14 years, stone removed without difficulty, weight 3 vij. On the tenth day after the operation the urine passed by its proper channel; on the thirteenth day wound had closed entirely. Twenty-three days after the operation patient was discharged cured.

CASE III.—Ed. S. (German), æt. 18 years. Stone removed was of the mulberry variety, about the size of a peach kernel; twelve days after being operated upon, urine passed by the urethra. Twenty-eight days after operation patient was discharged cured.

CASE IV.—W. A. Wall, æt. 5 yrs. 8 mo. Stone being of the mulberry variety, three-tenths of an inch in diameter. On the eleventh day urine passed per urethram. Discharged cured twenty days after the operation.

CASE V.—James Murphy, æt. 38 yrs., stone extracted in fragments, the largest one being the size of a peanut, and having for its nucleus a broom straw; ten fragments were removed; water passed by its normal channel sixteen days after the operation. Twenty-seven days after the operation patient left the house of his own volition, cure not being complete; wound in the perineum not healed.

CASE VI. B. L. Gardner, æt., 27 years. Operated upon the 12th of last month. Stone extracted being one and one-half ($1\frac{1}{2}$) inches in length. Weight, $\frac{3}{4}$ j., 3 v. Variety, phosphate of lime.

Four days after the operation, patient suffered a sharp attack of hemorrhage from both the wound and urethra. This was controlled by injecting the bladder with hot water and "petticoating" the catheter in wound. Nine days after operation urine passed by urethra and wound. It will be noticed that in 5 of the above cases the urine passed per urethram on certain days, varying from the 9th to the 16th after the operation. This fact finds its solution in this: The prostate being cut during the operation becomes tumefied, swollen, and prevents the urine passing by the wound.

The above cases were operated upon by Prof. W. W. Dawson, of this city. This gentleman has operated sixty times for stone with but the loss of three. Johannes Pok, of Brunn, Austria, has operated 123 times with two deaths. Sir Wm. Ferguson cut consecutively forty-four cases without the loss of one. Surgeons have cut patients laboring under stone twenty, thirty, fifty times without the loss of a single one. A more extended experience has, however, had the effect of bringing the average of fatality down to the certain loss of one in six, or ten. Men have vainly prided themselves on their success. Some on the supposition that they have operated more skillfully than others. Some because of the peculiar shape of a knife—and I may here remark *en-passant* that in this city to-day there is a prominent surgeon who attributes his good fortune to the shape of his knife, and who never fails to state to the class present, "This is the knife my father used." Superior success has ever been claimed, on account of a special prayer and appeal to the Almighty.

Perhaps the most brilliant statistics on record are those of Benjamin Winslow Dudley, who cut 207 times with but the loss of six. Gross, however, in an article entitled "A Century of American Medicine," published in the "*American Journal of the Medical Sciences*" for 1876, seems to doubt the accuracy of these statistics, while at the same time he remarks: "Still the results would be sufficiently above the ordinary standard to show that Dudley was a great lithotomist."

The distress and misery occasioned by urinary calculi were probably experienced in the earliest

ages of the world. Relief, we may therefore suppose, would be sought for by the removal of the stones as soon as such a sufficient knowledge of anatomy was obtained as could render attempts of this kind practicable.

At a certain period the public were much amused with high encomiums on the lithotriptic power of different articles, particularly lime water, and of caustic alkali in a diluted state. It has been the expression of the more candid men in the profession, however, that you might continue such treatment "until the crack of doom" without producing any effect whatever. There is not one authenticated case on record of a stone in the bladder being dissolved by the use of these or any other remedy.

To what, then, must the patient have recourse? *Nothing*, short of a surgical operation.

No one operation has given rise to so many labors, discussions and efforts of every kind and description. Hippocrates mentions that, in his time, the operation was frequently performed, but, as said before, discountenanced it, and for this reason: Certain lithotomists of his day were so depraved as to perform lithotomy on patients, who were free from stone, and in such a manner as to cause their death during the operation. Celsus was the first who described the operation at the time in which he lived. It consisted in an opening being made in the body of the bladder, directly upon the stone itself. From the small number of instruments used in this operation, it has been termed, "The operation by the lesser apparatus."

The methods of operating by the perineum are especially numerous. Surgeons have exhausted their ingenuity in devising new methods, most of these have passed into oblivion, only a few need be mentioned:

The "oblique-lateral." The credit is due to Frere Jaques (1697) of having popularized this method. Rau, a Dutch surgeon, modified it somewhat, and Wm. Cheselden, the "English Father of Lithotomy," made the operation what it is to-day, the operation *par excellence*—the method preferred by such men as Mott, Dudley, Nathan Smith, Paul F. Eve and Gross.

The "median," numbering among its followers the name of Johannes de Romanis (1500-1520) the originator of the operation, his pupil, Marianus Sanctus, sometimes called the "Methodus Marianus." This is the operation brought so prominently before the profession by Allarton, of England, in 1854.

The "medio-lateral" advocated by Mr. Buchanan, of Glasgow, who first proposed it in 1854.

The "medio-bilateral" with which is associated the name of Civiale—quite a favorite with French surgeons.

The "bilateral" of Dupuytren, a method, by the way, which was preferred by the elder Mussey, Pancoast and Willard Parker. There are various other methods of operating in the perineum, with an account of which I do not choose to weary you.

I desire to call your attention to an operation, the first account of which met with in books appeared in a "Treatise on Hernia" by Franco in 1556. I refer to the "high" or "supra-pubic," an operation

practiced by a family named Colot, long before Franco wrote of it. In fact a member of this family, Germain Colot, was the one who operated in the presence of the king, Louis XI., in the year 1474 upon the man condemned to death. This occasion is portrayed in a steel engraving to be met with in almost every doctor's office, and is, historically speaking, incorrect, as the operation is represented as being done in the perineum.

The "high" operation was in high favor at London, Edinburgh and on the continent, in the year 1720. We are informed by Benjamin Bell, in his "System of Surgery," Edinburgh edition, 1791, that this operation was "keenly patronized by Mr. Cheselden."

My object in calling attention to this method, now, "laid upon the shelf," is, because I think it should be an item of consideration, how far it may be proper to avoid the "lateral method" and, under certain circumstances, to adopt the "high" operation.

The most material objection, to the modern, or "lateral method" of cutting for the stone, arises from the bruising of the soft parts against the contiguous bones, in the extraction of a *large* stone, which is so much the case that we may consider the risk from the "lateral operation" to be almost in proportion to the size of the stone. It will be remembered, that the first one of the six cases reported, died, and, in this case the stone weighed nearly $\frac{3}{4}$ lb. I do not undertake to say that the extraction of a stone weighing $\frac{3}{4}$ lb. was the *cause* of a fatal termination.

Calculi weighing $\frac{3}{4}$ lb.— $\frac{3}{4}$ lb. are most common. The largest calculus, ever successfully extracted from the bladder in this country though *not* without breaking it, weighed $\frac{3}{4}$ lb. The operator being Dr. A. Dunlap, of Springfield, Ohio. Morand saw a stone which weighed six (6) lbs. and Utterhoeven of Brussels had in his possession a stone removed by the "high operation" six and one-half ($6\frac{1}{2}$) inches long by four in width, at its widest part. Usually, only one calculus is to be found in the bladder. In Physick's famous case a thousand were found.

Stone, being such a common affection, why is it that we see surgeons in the large cities, piling up such statistics? Are the country practitioners "shaky" on the anatomy of the perineum? or, are they like the Arabian surgeon who, when a "heathen in his blindness" was quite a successful and daring operator, but who became impotent, after having acquired a knowledge of this region? I think I can safely say that neither of the reasons mentioned is the cause of the apparent unwillingness to operate. What is the "bugbear" then? Is it not the picture that the surgeon sees, in his "mind's eye" of that death so suggestive of the shambles, the glazed eye, the ashen hue of the countenance, the cold, dewy perspiration which characterize the death by hemorrhage?

I come now to consider the symptoms of stone. The operation for the removal of the same, and the after treatment of the patient, these subjects will be treated of in the briefest manner.

The patient does not complain of stone, but of the symptoms, which are:

1st. A painful sensation of weight and heaviness

in the rectum, increased in intensity, by any violent effort on the part of the patient.

2d. The glans-penis becomes the seat of an intense pruritus, which induces the patient to make traction on the prepuce.

3rd.—Frequent micturition is a prominent feature, immediately after the act, the patient experiences pain, acute and lancinating in character, produced by the contraction of the bladder, pushing the calculus toward the neck, sympathetic pains are experienced along the thighs; in the loins, or in other, and remote parts of the body.

4th.—Hæmaturia is also a prominent symptom.

Such symptoms, as above mentioned, even, if taken collectively, are sometimes fallacious.

No surgeon can tell whether, in a given case presenting all of these symptoms, he has for a certainty, a stone to deal with.

We have to depend upon the physical signs, rather than upon the subjective symptoms.

An exploration of the bladder is imperative.

We are aided materially in our diagnosis by a quick ear, and light hand.

No one, it is to be presumed, would think of operating, who had not heard and felt the "click" elicited by the contact of the sound and stone.

The rule, (to which there are no exceptions) is, if the surgeon can not strike the stone, at the time of the proposed operation, the operation *must* be postponed. Among the names of those who have cut for stone and got nothing for their pains, might be mentioned the names of Cheselden, and Desault. Erichsen says: "When an untoward accident occurs, those will be the most charitable in their judgment of others, who have themselves had the most experience in the operation, and have had most frequently to encounter its intrinsic difficulties."

Many ingenuous proposals have been advanced by individuals for the improvement of the "lateral method" of cutting for the stone. But a minute examination of all that has been said upon this subject, is incompatible with the scope of this paper.

I shall consider, *only*, the operation in almost universal use in England and in this country, viz:

THE LATERAL OPERATION.

In accordance with long established custom, we are told to shave the perineum, for what reason I do not know. The object of having a clean field for the first incision, can be attained by a careful use of the scissors, the growth of the hair after being closely shaven, giving rise to much discomfort. The grooved staff being introduced, and entrusted to a reliable assistant, the surgeon surveys the field, not failing to notice the prominent "landmarks," which are the *raphé* of the perineum, the *tuber ischii* and anal aperture. The first incision should divide the skin and superficial fascia only, the incision is to be commenced on the left side of the *raphé*, one and one-half ($1\frac{1}{2}$) inches above the anal aperture, and is to be carried downwards and outwards to the left, to a point midway between the anus and *tuber ischii*. The surgeon then inserts his finger into the upper angle of the wound, (so as to protect the bulb of the urethra and its artery) deepens his incision, till he can feel distinctly the groove in the staff, into

which he inserts his knife, and pushes it on into the bladder.

He then lays aside his knife, inserts his finger and placing it on the stone, withdraws the staff, inserts the forceps, and extracts the stone.

These are the steps one sees in practice, although the books tell us of much more.

AFTER TREATMENT.

The bladder is then washed out with warm water, catheter tied in, (or not used at all) and patient put to bed, ordered light diet and if irritable he is to be kept well narcotised. A "draw-sheet" is placed under the patient, the urine runs into some carded oakum placed beneath and frequently changed; in fact we may almost say to the patient, in the language of Frere Jaques, "I have operated upon you, may God cure you."

In conclusion, I quote a sentence or two from Hilton's admirable book on "Rest and Pain." "Stone, then, is a disease requiring operation, because it induces certain painful symptoms, and, by removing the cause, the part gets well—first through the assistance of the surgeon, ultimately through the medium of nature."

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

PNEUMONIA OF UPPER LOBE—TRUE ANEURISM OF THE ARCH—DEATH BY HEART-THROMBUS.

James W., oysterman, was admitted Oct. 21st. His father died of phthisis, his mother of cholera. He has one healthy brother. When a boy the patient had scarlatina, followed by otitis media of the left ear, ending in deafness. Also had acute nephritis with dropsy. Has been a vigorous man, drinking a good deal and subject to colds. His occupation exposes him to wet, etc. Last winter he had chronic diarrhoea. The following spring he had an acute bronchitis, lasting over a week. The past summer he has been drinking pretty freely, but has been well. Saturday evening, Oct. 20th, the day before admission he was quite suddenly taken with a severe pain in the right side below the nipple. It was sharp and increased by coughing or deep respiration. With the onset of the pain he felt a chill. His head ached severely; he felt weak and ill; the next morning he was not better, having slept but little.

On admission he was strong and vigorous-looking, somewhat stupid and deaf, and would give but few symptoms. He seemed to be suffering only from headache and pains and oppression on the right side of the chest. He lay on the affected side, with the body flexed; the cheeks were flushed, the right more than the left. The *alæ-nasi* dilated on inspiration, especially the right one. There was diminished expansion of the right side, and there were present all the signs of complete consolidation of the lower part of the upper lobe behind, extending into the middle lobe in front. The heart-sounds were normal in rhythm, but very intense, especially the second sound at the base. The abdominal or-

gans were normal. The patient coughed moderately and expectorated a small amount of viscid, rusty-colored material. The urine was dark, acid; 1028, no albumen, but had abundance of urates and chlorides. The bowels were constipated. Temperature at noon, $104\frac{3}{4}^{\circ}$: ordered quinine, 20 grs., and again at night, when his temperature was 104° .

Oct. 22d (third day): A.M., temperature, 103° ; pulse, 106; respiration, 31; P.M., temperature, 103° ; pulse, 97; respiration, 30. The consolidation had extended slightly. The patient was stupid and sleepy; he breathed heavily but had no dyspnoea. The pulse was strong. Ordered, quin. sulph, gr. x. t. i. d. and tr. aconit. rad. gtt. j. q. h. until 8 doses were given.

Oct. 23rd (4th day).—A.M. temperature 101° , pulse 80, respiration 34; P.M. temperature $103\frac{1}{4}^{\circ}$, pulse 94, respiration 32. Pulse not so strong; mind clear; no pain.

Oct. 24th (fifth day).—A.M. temperature 100° , pulse 84, respiration 32; P.M. temperature $100\frac{1}{4}^{\circ}$; respiration 29. Patient's mind is pretty clear, and he is comfortable except for some oppression in the infraclavicular region. He lies a good deal with his eyes closed, breathing heavily, the *alæ nasi* dilating and the trapezius and sterno-mastoid muscles brought into play. He coughs and expectorates a little. Physical examination shows the whole upper and middle lobes consolidated. The heart-sounds are weaker; the first sound can hardly be heard, while the second is very intense; at the junction of the fifth rib with the sternum on the right side is heard a loud systolic murmur. The patient is weaker but conscious and clear headed; the face is congested. To-day he developed a laryngitis which causes pain, cough and hoarseness of voice. Poul-tices to neck gave relief. At 6 P.M. he was ordered half an ounce of whiskey and ten grains of carbonate of ammonium each every three hours, to be given alternately so that he had some stimulant every hour and a half. Later in the evening sibilant and sonorous râles could be heard all over the chest, but especially behind at the base of the lung; there were no crepitant or subcrepitant râles. Toward morning a few subcrepitant râles were heard. The chest was well cupped and they disappeared.

Oct. 25th.—Temperature 108° , respiration 100 (?). The patient lies on the unaffected side in a semi-comatose state, breathing heavily and rapidly. The face is still congested but not cyanosed. On account of the breathing and the liquid râles of œdema of the lungs, the murmur could no longer be heard. At 11 A.M. the œdema of the lungs was marked. He was again cupped, and half-an-ounce of whiskey and ten grains of carbonate of ammonium given every two hours alternately. At 1 P.M. the œdema disappeared. At 4 P.M. he was worse than ever; the face was cyanosed and had an anxious look. The extremities were cold and blue, the pulse scarcely felt and 120 per minute. The breathing was rapid and labored and tracheal râles could be heard. He still seemed conscious, though only dimly. He retained some consciousness and seemed to have a good deal of distress. At 6 P.M. he died.

AUTOPSY.

Brain.—Congested and slightly œdematous.

Liver—Congested.

Spleen—Twice the normal size.

Intestines and Kidneys—Normal.

Lungs—Upper right lobe showed third stage of pneumonia; other parts œdematous. Pleura adherent on right side.

Heart.—Right ventricle contained an ante-mortem clot. The left ventricle was somewhat hypertrophied. The ascending and transverse arch of the aorta formed a large pouch which was completely filled by a clot. Its walls were thickened and dotted over by yellowish spots, somewhat elevated. In some places small calcified plates existed, while in others there were a few ulcers. All the heart-cavities and the veins and arteries leading to and from the heart were distended with clots.

SOCIETY PROCEEDINGS.

MEETING OF THE MEDICAL SOCIETY,
OF THE COUNTY OF NEW YORK, NOV.
24TH, 1879.

(Reported for THE HOSPITAL GAZETTE.)

The meeting was called to order by the president, Dr. A. E. M. Purdy, as an adjourned business meeting. The minutes of the anniversary meeting were adopted as printed.

The report of the committee on yellow fever fund was laid over.

A communication from Dr. F. J. Bumstead was read, in which the writer regretted his inability, by reason of accident and illness, to be present and preside at the meetings of the preceding term, and wishing success to the society.

There being no further business, the meeting adjourned.

It was thereupon immediately called to order again as a stated meeting.

The newly-elected president, Dr. Purdy, in taking the chair, made a brief address. He said that he wished to tender his acknowledgments for the honor that had been conferred upon him, and he would unite with the society in all measures calculated to improve and advance its aims.

In reviewing the history of medical societies in this state, Dr. Purdy said that for over one hundred years after the settlement of the colony there was no attempt made to restrict or govern the practice of medicine, and a writer of the last century said that there was no city in the world which abounded with so many doctors, most of whom were quacks, ignorant of everything, even of spelling. After the middle of the last century the first law was passed regulating the practice of medicine and surgery, and providing for the establishment of state and county medical societies. It had been asked what was the object of these societies, what good did they do? These questions arose from a misconception. The prime object of the society was to regulate the practice of medicine and surgery, and its secondary aim was to aid in the spread of knowledge and the diffusion of science, and to elevate the condition of the profession. For the first object there were the laws of the state, the code of ethics, and the edicts of the state society. These, if sufficient and properly enforced, should lead to the extinction of quackery.

The speaker here read an extract from the report of the censors, made at the last meeting, and continued: From this it was evident that the qualifications of the physician were not sufficiently numerous or enforced. How could illegal practitioners be prosecuted? Complaint could be made by any member or by the society through its officers to the district attorney, who was thereupon bound to prosecute. Paragraph 6 of the State Ethics says that advertisements, etc., were acts of quackery, but this was not sufficiently definite. The existence in this county of physicians who are regular, and yet who are not members of the county, while enjoying the same privileges, shows that there is something wrong either with the laws or with the society, and raised the question whether the society, which was founded to regulate the practice of medicine and surgery, had really done so.

As to the second object, the society endeavored to carry it out by the scientific papers and discussions which were held at the stated meetings.

The President then read the appointments on the standing committees for the next term. The minutes of the adjourned anniversary meeting were read and approved.

The report of the *comitia minora* was received, and that part of it advising the issuing of certificates of membership to Drs. Ackerman, Seibert and Robbins was adopted.

Dr. D. B. St. John Roosa moved that the Treasurer be instructed to pay the assessment of the State Medical Society for its "transactions."

In supporting his motion, Dr. Roosa stated that in 1878 the State Society resolved that every County Society should be assessed for the purpose of publishing its transactions. To this action there was no remonstrance. The New York County Society objected, and instructed their delegates to vote against it. These delegates did so vote, but it was carried against them by an overwhelming majority; and now the law stands that each County Society shall pay for a number of copies of the "transactions" equal to five times the number of its delegates. He had heard that it was the intention of the *comitia minora* to quietly let the time in which the assessment was to be paid pass by, and he had brought it up this evening in order to get the sense of the members present on the subject.

It was moved as an amendment to strike out all after the word "resolved," and substitute "that the matter of the assessment for the transactions of the State Society be referred to the *comitia minora* with power."

Dr. Piffard read an extract from the by-laws. Nowhere in the medical acts of the State was the power given to the State Medical Society to assess the County Societies. But this had been its policy from the beginning; in the very first year of its existence it had attempted to deprive the County Societies of the rights granted to them by law, and these attempts had recurred from year to year. Sometimes they were resisted. This assessment was illegal, therefore the Society was not bound to pay for these "transactions." So that the question now was, was it to the interest of the society to subscribe this sum? Before 1875 the State paid for these transactions; but in 1875 the State refused to

continue doing so, and the State society called upon the county societies to subscribe. In 1876 it was found that 100 copies were enough, though the society had had 150 in 1875; in 1877 100 were again subscribed for. In 1878 the State society assessed the N. Y. County Society for 105 copies of the transactions. In all \$633 had been paid by the County to the State Society in four years. In return it had received very little. The copies of the "transactions" accumulated; nobody wanted them. In 1878, at the annual meeting they were offered at 50 cents a volume, and a few disposed of; afterwards the price was reduced still further to 25 cents, and three or four copies sold; still later they were offered to the members for nothing if they would but come and get them, but without takers; until finally the secretary had brought the remainder to the last meeting, and after much persuasion, had succeeded in inducing the members to relieve him of them. The county society had paid \$633; in return not \$25 had been received. There was no equivalent given for the money; it was simply a subscription, and the question therefore was should the county society continue the subscription? It might eventually find itself in the situation of the Homœopathic Society, which had to give a chromo in order to get rid of its transactions. What were the "transactions?" They purported to be the business of the meeting and the papers read; but some of the papers published in it had never been read.

Dr. Roosa said he would not follow the last speaker's example and foul his own nest; he was willing to let the transactions as published go out to the world as the fair representative of medical science and of the profession in this State. But the question was, should the county society be loyal and pay the assessment, or should it secede or repudiate? If the question of expense was raised, this expenditure might be compared with the \$700 expended for publishing the transactions of this society since 1801. There was not and there ought not to be any hostility between this society and the State society.

Dr. Piffard, in replying, stated that the vote at the meeting at which the assessment was ordered was 41 to 20, and this 41 represented the opposition that this society had to encounter at the State society.

Dr. Weber moved as an amendment that the secretary be instructed to open a subscription-list and subscribe for as many copies as should be subscribed for by the next meeting. Dr. Elliot accepted the amendment and withdrew his motion.

Dr. Roosa hoped that the amendment would not be carried.

The Ayes and Nays being called for, the vote on Dr. Weber's amendment, stood 12 ayes to 30 nays and it was accordingly declared lost.

The vote being then taken on Dr. Roosa's original motion that the secretary pay the assessment for 1879, it was carried.

The papers of the evening on

THE PROGNOSIS OF CÆSAREAN SECTION.

by Dr. Lusk, was then read. Dr. Lusk said that Dr. R. P. Harris had collected statistics of 110 cases in America and 1 of these 46 had recovered; fully one half died. Still the showing was more favorable

than craniotomy. But statistics did not represent the truth; there were many cases, both successful and unsuccessful, which had never been reported, so that the whole matter was one of speculation. But if we devoted ourselves to the study of the cases published we should be able to arrive at a conclusion much nearer to the truth than the statistics. Of the cases collected in Michælis' statistics, one third were hospital cases, among whom the mortality was much greater than in private practice. Kaiser found that 79 % of the hospital cases died, and it was said that not one such recovered in Paris or Vienna. But in healthy rural localities the results were much better, and it was not right to discard the operation or confine it to moribund cases because statistics seemed to show a large proportion of deaths. Many of the cases terminated fatally because the operation was performed in the putrid atmosphere of a lying-in hospital, just as ovariectomy would under the same circumstances. But would it have been right to throw aside the brilliant results of ovariectomy in the hands of Peaslee or Spencer Wells because in Paris the operation always terminated fatally? A study of Michælis' cases showed that many of them were unfavorable for the operation, the patients being either dead, moribund, or exhausted by a prolonged labor. A priori, it would appear that every hours delay adds to the peril and this is proved by experience. When timely, 81 % of the cases recover.

There being no discussion or further business, the Society adjourned.

NEWS ITEMS AND NOTES.

The Country Practitioner has reduced its price to \$2 per year, and says that no visiting lists, no match boxes, no chromos will be given as premiums. This is good; but it would be far better if it kept its pages clear of communications from eclectics. We suggest that the editor should make inquiries about his contributors, and should not accept articles from persons little better than empirics.

Ergotin Hypodermics in Epistaxis.—Dr. Porak cites three cases of obstinate nasal hemorrhage, each of which was promptly arrested by a single hypodermic of ergotin. His formula was: Bonjean's ergotin, two grams; glycerin, thirty grams. M. Twenty drops hypodermically in the lip or cheek.—*La Tribune Medicale*.

The Southeast Missouri Medical Society, on Nov. 4th, passed the following resolution: That no member of this association should receive any student unless said student first pledges himself not to enter any medical college in the United States except those requiring a preliminary examination and a three-year course of graded instruction.

Infant Insanity.—Paulmier, in 1,000 cases of insanity, had ten children; John Turnam, out of 21,333 cases, had eight children under ten years and 1,161 between ten and twenty years.—*Amer. Jour. of Obstetrics*.

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and the Collateral Sciences.


EDITED BY

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NEW YORK, SATURDAY, DECEMBER 13TH 1879.

EDITORIAL.

MODERN SILOAMS.

It is terribly lacerating to human susceptibility to have the much cherished air castles cast down, to be suddenly aroused to a realization of the fact that we have been treasuring a figment of fancy as zealously as we should a sacred truth. Our air castles do go down frequently and violently, and we suffer greatly in consequence, until time and occasion come for our building others. Our present distress, calling forth these reflections is the result of a general knocking-over of castles, a mental state comparable only to a scientific performance in a bowling alley.

From our earliest days, when Mitchell and Morse were our geographical deities, until this moment, we

have held in more than high esteem those few localities that were favored by the Creator with gifts of healing, and we pictured the people thereabouts, constantly reminded of His greatness and goodness, as pure, patient and devout. The pretty pictures of the Scriptures of "the angel troubling the waters" and the pool of Siloam were recalled with every mention of the healing virtue of the waters of the Hot Springs, therefore we conjured like patriarchal and benevolent people for residents, to make the picture complete. We had always looked upon Hot Springs as divinely favored, and the people as rejoicing in being permitted to assist sufferers to reach the coveted healing waters. We could never read or hear of the blessings of restored health coming from those waters without strolling to the front parlor, at home, and gazing upon the elegant engraving of Siloam that hung just above the mantel. Everybody did so; all built such air castles.

Our Siloam air castle of Hot Springs has been rudely jostled, however. We have been compelled to add to the scriptural picture so long cherished—new faces; these are to be—medical gentlemen, first class hotel clerks, and other first-class hotel accommodation, managing editors and newsboys. How odd these frisky characters would look, when mingling with the old white beards of our former picture? They will not mingle; there is too much of the oil in the new characters for a water scene. Our old fancy is completely gone; white beards, healing waters and devout looks are hidden by the pushing new ideas.

The irrepressible editor has given us this shock; he it is that has taught us that we must recognize these new characters, and his doing so was a pleasant duty to him. A first class sensation, involving the doctors, the lawyers, the hotels, and all the waters of the springs, themselves, made its appearance, and of such is the newspaper made, therefore the truth is spoken.

The Hot Springs attract the wealthy who are suffering from certain diseases, the suffering wealthy have attracted the doctor, the doctors look after the wealthy and their wealth, the merchants look after the doctors' wealth, and so on *ad infinitum*, eventually developing a circle, all full of business of healing and a striving for wealth. The great business of the place is doctoring, and everybody in business is dependent upon the doctors' success in securing custom and consequent pay. Doctoring being the chief business, and everybody being dependent upon its rewards, everybody attends to business according to business laws. Solicitors solicit, agents represent and attendants assist the doctors; the boats and cars leading to the city, bringing sufferers who hope to be relieved, are met by doctors' representatives,

who extol their respective principals and denounce rivals. Business begins before the victim gets within the city limits, and continues unceasingly until he dies, generally, or by some chance is restored to health, occasionally. The work of solicitation is the most important and best remunerative outside branch of the Hot Springs industry, therefore the business ingenuity here shows itself most prominently. At first the hotel men, proprietors and clerks, had control of this branch, and the hotel doctors did all the business of medical advising. Their success tempted resident doctors to authorize and equip special solicitors to besiege incoming trains and boats, and they had their day of triumph, much to the disgust of the hotel men. The defeated hotel men rallied again, flanked their opponents, using the city ordinances for the overthrow of outside solicitors and agents. Under these ordinances many agents have been prosecuted, the resident physicians have lately been prevented from coming in contact with health-seekers, consequently their business has been destroyed, while the hotel doctors and their friends have grown fat upon the spoil.

One brave soul from among the resident class has been aroused to put on his armor and throw down the gauntlet of defiance to the present victors; Dr. Adams, a few weeks ago, sent out his solicitors to gather some of the harvest for him. Hardly had they begun their work before his solicitors were arrested, were arraigned, found guilty of violating the aforesaid ordinances, were fined, much to the joy of the hotel men. That trial was but the beginning of the present contest; this result was anticipated, and was required, that an appeal might be taken to the higher courts. The Doctor stood by his agent and has appealed the case, asserting his right to solicit trade, as other tradesmen do, and denouncing the forbidding ordinances as unconstitutional, oppressive and unjust to himself and his friends, only beneficial to a select few, who live in the sunshine of hotel proprietors' favor.

It is remarkable, showing the extent to which hypocrisy can reach, that both parties in their arguments and appeals seem dreadfully concerned about the dignity of the medical profession; each depicting the certain injury to the dignity consequent upon the other's success. At this distance, the hold that either has upon that dignity hardly equals in strength a tooth grasp, and had better not have been referred to. Their aim is money, for the profession of that city are the men who transact its business, and they know it. Other men, versed in business, but not feeling the honorable restraints which the profession inculcates have led some of the physicians astray,

into money-making doctoring; hence the present disgraceful contest.

Hot Springs doctors have their similars in all of the cities of our land, who slip through the advertising prohibition of the code of ethics as easily as an eel goes through one's fingers. Their devices are numerous, and would be amusing if they were not so disastrous to the true honor of the profession. Every agency that will bring trade is resorted to and rewarded by them, and not the deserving, but the pushing, prosper. The Hot Springs affair is louder than the others, which is the only difference.

Our hope is that the Hot Springs contest may continue until the sick will be afraid to go there, and the city loses its support, or the doctors of that city learn to act honorably, and refuse to enter into entangling alliances with outsiders. The more animated this contest becomes, the more probable the general subject of advertising doctoring will be discussed, and be properly rewarded. There may come with this disgraceful contest a popular verdict which will work to the immediate disrepute of the entire profession. That verdict will be as unjust and thoughtless as can be, yet if it becomes a matter of general discussion, it must eventually be reversed, so far as it relates to the regular profession, the temporary overhanging cloud may be taken as a promise of a brighter future.

The advertising and soliciting performances of some physicians need ventilation, and the Hot Springs affair is a good text for a ventilating sermon. His Satanic majesty can easily be whipped around that stump for the general good.

Our heartfelt sympathies are with the brave Dr. Adams to-day. If his appeal prospers, we shall sympathize with the other fellows. Our only wish is that the contest may be fiercely waged until the whole business is thoroughly exposed.

Let it be remembered that a doctor's legal rights are secondary to his professional obligations, and whoever stands upon his legal rights alone is unfit for recognition in the profession.

Preservative of the Dead.—The United States Consul General at Berlin, Mr. Kreismann, has communicated to the Department of State a new process patented in Germany for preservation of the dead. The liquid used is prepared as follows: In 3,000 grammes of boiling water are dissolved 100 grammes of alum, 25 grammes of cooking salt, 12 grammes of saltpeter, 60 grammes of potash, and 10 grammes of arsenic acid. When cool it is filtered. To 10 liters of this liquid 4 liters of glycerine and 1 liter of methylic alcohol are added. The process of embalming is by saturating and impregnating the bodies with it. From 1½ to 5 liters of the liquid are used for a body.

PUBLIC HEALTH.

SUMMARY OF BIRTHS, MARRIAGES, STILL-BIRTHS,
DEATHS, &c., &c., IN NEW YORK CITY,
FOR THE YEAR 1878;AND ALSO THE MORTALITY FROM SOME OF THE MOST PROM-
INENT CAUSES

BY

JOHN T. NAGLE, M.D.,

Member of the American Public Health Association, New York County
Medical Society, New York Public Health Association, &c., &c.

NEW YORK CITY.

* *Area*.—The area of New York City is 24,893,156 acres, or 188½ square miles. Of this number the annexed district comprising the 23rd and 24th wards, contains 12,317,346 acres, or 19 26 square miles.

* *Length of Streets Paved in New York City* (not including the annexed district, 23rd and 24th wards,) is 330 miles.

* *Length of Streets Unpaved in New York City* (not including the annexed district, 23rd and 24th wards) is 51 miles.

† *Length of Streets Paved in the 23rd and 24th Wards of New York City* is 2.57 miles.

† *Length of Streets and Roads partly Macadamized in the 23rd and 24th Wards* is 12.60 miles.

† *Length of Streets and Roads Unpaved in the 23rd and 24th Wards* is 123.83 miles.

* *Length of Sewers in New York City* (not including the 23rd and 24th wards) is 369.19 miles.

† *Length of Sewers in 23rd and 24th Wards* is 5.81 miles.

* *Elevation of New York City above High Water* (not including 23rd and 24th wards) varies from 7 to 245 feet.

† *Mean Elevation of 23rd and 24th Wards*—82 feet.

* *Point of greatest Elevation above High Water in New York City* (excluding 23rd and 24th wards) is Bennett's Building at Fort Washington, which is 245 feet.

† *Point of greatest Elevation above High Water in the 23rd and 24th Wards* is about 700 feet east of Christ Church, at intersection of South street and Riversdale Avenue, which is 284 feet 5 inches.

* *Points of Least Elevation in New York City* (exclusive of 23rd and 24th wards) are at the corner of Grand street and south 5th Avenue, and generally along the river front, which are 7 feet above high water.

† *Points of Least Elevation in the 23rd and 24th Wards*.—The area on the water front from Westchester Avenue, and Bronx River to Hudson River and Yonkers line.

Population.—The United States census taken in June, 1870, gave New York City a population of 942,292; 457,117 males and 485,175 females; and the New York State census, taken in June, 1875, gave the City a population of 1,041,886; 506,922 males and 534,964 females. Of this number but 36,104 were in the annexed district (23rd and 24th wards) which contains nearly half the area of the city. An annual rate of increase of population of 1.31 per cent. would therefore appear to have taken place. The estimated population in the middle of the year 1878 was 1,083,371; 527,106 males, and 556,265 females.

† *Assessed Valuation of Property*.—The Department of Taxes and Assessments have estimated the value of real estate in New York City for 1878 at \$900,855,700

And the personal estate for 1878 at 197,532,075

Total, \$1,098,387,775

* *Immigration*.—The number of emigrants that arrived in this city from foreign countries during the year 1878 was 121,369; of this number 75,347 were aliens.

Dwellings.—The New York state census of 1875 showed the city to have 67,126 dwellings; of this number 16,032 were frame, 40,632 brick, and 10,462 stone; the total valuation was \$1,086,619,017, of which the frame dwellings amounted to \$108,839,487; brick, \$639,713,530; and stone, \$338,066,000.

Density.—The average number of persons contained in each house was 15.52 (nearly double that of London which, was 7.5), to each acre 41.85, and to the square mile, 26,790.59.

* From Department of Public Works.

* " " " Parks.

* " " " Taxes and Assessments.

* " " " Commissioners of Emigration.

The summary of the statistics of births, marriages, still-births and deaths which is herein presented has been collated from certificates filed in the Bureau of Vital statistics of the Health Dept. and the source from which these certificates are obtained is as follows, viz.: The certificates upon which the compilation of the statistics which relate to death and its causes are obtained exclusively from physicians;* the births and still-births from the certificates of physicians and midwives, except in a few instances where a birth occurs without the attendance of a physician or midwife it is returned by any person who may have been present at the birth. The certificates of marriage are obtained from clergymen, magistrates and others who are empowered by law to solemnize them, hence the accuracy and completeness of the statistics are based upon the reports of the persons above mentioned.

BIRTHS.

The number of births registered during the year 1878 was 25,729, this is an increase of 160 compared with the number reported during the preceding year and represents an annual birth rate of 23.74 per 1000 of the estimated population.

This low birth rate would show an apparent loss of population during the year which was only supplied by immigration. The statistics of birth, however, are not reliable, the number which actually take place annually cannot fall short of 38,000 leaving upward of 12,000 births unreported. This can be verified by the records of mortality from January 1st, 1871 to Dec. 31st, 1875, a period of 5 years, which showed the total deaths of children during this period, under 1 year of age, to be 43,282 or an average of 8,656 deaths under this age annually. The New York State census of 1875 showed that 27,261 native white children under 1 year old were alive in this city in the year 1875. The number of colored children of the same age being 315. Assuming that all these colored children were natives of this city, the population of children who had not attained their first year and were living when the census was taken, was 27,576; if the average number of deaths of children under 1 year old who died annually for the 5 years ending Dec. 31st, 1875, be added to this number it would show a total of 36,232 children whose births must have taken place during the year; this would be equivalent to an annual birth rate of 34.77 to the 1,000 inhabitants. Estimating at this rate the total births in this city for the year 1878 would be 37,669, which is 10,661 in excess of the deaths. Unless the law requiring the registration of births be stringently enforced, I see no way of obtaining any reliable information regarding this important branch of statistics. The 25,729 voluntary contributions to the birth record will show the share or proportion that the native, foreign and colored inhabitants furnished during the year. The New York State census of 1875 for this city gave a native white population of 581,374; a foreign white popula-

* 3033 of the certificates of deaths and still-births were received from the coroners during the year, each coroner is accompanied by a qualified physician who views the body with him and makes an autopsy on it, if necessary, preparatory to the inquest, the physician fills the cause of death, &c., on the certificate.

tion of 445,258, and a colored population of 15,254. This would give a birth rate of 13.85 to the 1,000 native white inhabitants; 38.92 to the foreign white, and 22.81 to the colored. If we analyze the census to discover the reason of this apparent small birth rate of the native compared with the foreign population, we find that out of a total native white population of 581,374 residing in this city there were but 273,407 who were 15 years and over, and of this number 141,031 were females; while out of the total foreign white population of 445,258, 422,099 were 15 years and upward, and of this number 220,473 were females. We would, therefore, have in a population of 141,031 native white females, 9,536 births, and in a population of 220,473 foreign-born white women, 16,143 births, or 67.62 births to every 1,000 native white women 15 years of age and more, and 73.22 to every 1,000 foreign-born white women 15 years of age and over, or 1 birth to every 14.79 of the native white women over 15 years of age, and 1 birth to every 13.66 of the foreign-born white females 15 years of age and over. From the returns received in the Bureau of Vital Statistics it appears that the births, as well as the deaths, are more numerous among the poorer portion of the inhabitants than among their more prosperous neighbors. The certificates of births received during the year show that to every 1,000 of the natives of the following countries enumerated in the population of this city by the New York State census of 1875 the number of births is as follows:—

Germany, 51.67; Ireland, 26.26; England, 27.87; Scotland, 28.16; British America, 29.69; Bohemia, 169.48; Austria and Hungary, 66.01; Poland, 75.06; and France, 31.49. This comparison of the birth rate of the foreign-born residents shows that those who practice midwifery among the Irish, English, Scotch and British Americans are either not as scrupulously exact in registering the births they attend as those who practice among the other nationalities, or that the German, Bohemian, Austrian and Polish population has increased at a considerably greater ratio than the Irish, English and Scotch.

It is an interesting fact, however, to notice that although the number of births by native mothers (according to the returns received) was 9,536; German mothers 7,788, and Irish mothers 5,180. The Irish mothers, although credited with the lowest number of births of these three nationalities, had the highest number of multiple births; the number of twin and triplet births by mothers of these three nationalities were as follows:—Ireland, 93; United States, 76; and Germany, 47.

The age of 1,533 mothers who bore children during the year was stated to be between 15 and 20 years; 5,817 between 20 and 25 years; 6,700 between 25 and 30 years; 5,167 between 30 and 35 years; 2,878 between 35 and 40 years; 936 between 40 and 45 years; 157 between 45 and 50 years; and 5 who were upwards of 50 years of age had children.

2,840 native mothers bore their 1st child, 1,927 their 2nd, 1,426 their 3rd, 991 their 4th, 626 their 5th, 388 their 6th, 241 their 7th, 180 their 8th, 122 their 9th, 66 their 10th, 39 their 11th, 17 their 12th, 8th their 13th, and 5 their 14th.

2,611 foreign-born mothers bore their 1st child, 2,307 their 2nd, 2,241 their 3rd, 1,927 their 4th, 1,561 their 5th, 1,189 their 6th, 875 their 7th, 640 their 8th, 418 their 9th, 274 their 10th, 151 their 11th, 70 their 12th, 44 their 13th, 15 their 14th, 10 their 15th, 4 their 16th, and 3 their 17th.

MARRIAGES.

The number of marriages which were reported to have taken place in this city during the year 1878 was 7,629, of this number 7,435 were white males, 7,447 white females, 194 were colored males, and 182 colored females; 3,348 males and 4,112 females were born in the United States; 4,169 males and 3,396 females were born in foreign countries; 5,988 males and 6,127 females were married the first time, 1,104 males and 887 females the second time; 71 males and 33 females ventured on their third marriage and but two males on their fourth. 189 males and 1,959 females were married under 20 years of age; 2,648 males and 3,122 females between 20 and 25 years; 2,249 males and 1,312 females between 25 and 30 years; 1,130 males and 546 females between 30 and 35 years; 624 males and 337 females between 35 and 40 years; 334 males and 146 females between 40 and 45 years; 189 males and 80 females between 45 and 50 years; 109 males and 35 females between 50 and 55 years; 66 males and 14 females between 55 and 60 years; 24 males and 1 female between 60 and 65 years; 7 males and 2 females between 65 and 70 years; 10 males and 1 female were married between 70 and 80 years of age, and but 1 male was married between 80 and 90 years. 5,369 marriages were between bachelors and spinsters, 484 bachelors married widows, 418 widowers married widows, 707 widowers married spinsters and 12 white females married colored men. The marriage rate of this city, like the birth rate, is not complete, there being but 7.04 marriages returned to every 1,000 of the estimated population, this rate I think would be increased to 10 marriages to the 1,000 inhabitants if complete returns were made by those who are legally empowered to perform the marriage ceremony. The marriage, unlike that of birth rate, is higher among the native population than the foreign, the number of marriages to every 1,000 native females, 15 years of age and over, was 29.15, or 1 to every 34.29 of the population who had attained this age, while the number of marriages to every 1,000 foreign females of the same age was but 15.40, or 1 to every 64.92 of the population who had attained 15 years of age. Some definite and intelligible legislation should be had in regard to the marriage law, as it exists at present, it defines who shall perform the marriage ceremony and no marriage is allowed to be recorded in the Bureau of vital statistics unless received from a person who is legally entitled to perform it (the marriage ceremony). The State law may have been intended to regulate the subject of marriage in this State, if so, it is certainly a failure, as the courts recognize and decide that a man and woman living together as man and wife and publicly acknowledging themselves as such are legally married.

The vague interpretation of lawful marriage in this State encourages immorality and often causes tedious litigations (when property is left) after the demise

of one of the parties who have lived together without the performance of the marriage ceremony by some legally constituted authority, and sometimes questionable evidence is introduced for the purpose of proving that persons who were supposed to be living in doubtful relations during life, acknowledged themselves to be husband and wife at some period prior to the death of one of the parties. The family or relatives of a person who may have died, after living in this manner, are often induced, for fear of the scandal or notoriety that may be occasioned by a contest, to make a settlement or compromise with the questionable wife or husband. The subject of marriage is certainly important enough to need legislative action and should be settled beyond the possibility of a doubt. Justice to the legitimate heirs, and their social status demand that some definite and proper enactment be made on this subject.

From the returns received in the Bureau of Vital Statistics the number of persons married during the year to every 1,000 of the population, according to the New York State census of 1875, is as follows:

Ireland 7.33, or one to every 136.36 of the Irish population; Germany 22.87, or one to every 43.71 of the German population; England 19.99, or one to every 50.02 of the English population; Scotland 18.21, or one to every 54.93 of the Scotch population; British America, 26.88 or one to every 37.20 of the British American population; Bohemia 62.56, or one to every 15.98 of the Bohemian population; Austria and Hungary 58.11, or one to every 17.21 of the Austro-Hungarian population; Poland 18.25, or one to every 54.80 of the Polish population, and of France 22.16, or one to every 45.13 natives of France.

STILL BIRTHS.

The number of still births reported to have occurred in New York City during the year ending Dec. 31st, 1878, was 2,192—1,229 males and 966 females; the sex of 17 not having been stated. There were 2.02 still births to every 1,000 of the estimated population. The number of mothers who were born in the United States was 725, and those who were foreign born were 1,353. There was one still birth to every 194.52 females of the age of 15 years and more who were born in the United States; one to every 162.95 foreign born, and one to every 90.54 colored females of the above-mentioned ages. The native-born females who were 15 years of age and over had a less proportionate number of still-births than the foreign-born females of the same age, and the proportion of colored females who had still-born infants was nearly double that of the white. The relative proportion of the parentage of still-born infants to every 1,000 of the population (census of 1875) is as follows: United States, 2.24; Ireland, 5.76; Germany, 6.98; England, 4.35; Scotland, 3.41; British America, 2.41; Bohemia, 11.17; Austria and Hungary, 7.33; Poland, 11.70, and France, 3.07. The periods of utero gestation of one was stated to be one month; 13, two months; 33, three months; 79, four months; 123, five months; 234, six months; 279, seven months; 336, eight months; 1,062, nine months, and 21, ten months.

DEATHS.

The number of deaths that occurred in this city

during the year 1878 was 27,008; of this number 13,997 were males, and 13,011 females; 26,570 were white, and 438 colored; 7,100 of the deaths were under one year old, 9,716 under two, and 12,410, or 45.95 per cent. of the total deaths for the year were under five years of age. This is the lowest percentage of deaths of children under five years of age to the total mortality that has taken place in this city since the year 1849.

The highest daily mortality during the year occurred on July 18th and 19th. On the former day 143 deaths took place; of this number 98 were children under five years of age, and in the latter date 148 deaths occurred, of which 93 were children under five years old. The least daily mortality was on the 21st of November, when there were but 41 deaths, while 43 deaths occurred on the 23d of September.

The number of deaths to every 1,000 of the estimated population during the year was 24.93, and the average daily number of deaths was 73.99. Assuming that the population is the same as that given in the New York State census of 1875—1,041,886, the death rate of the city would be 25.92 to the 1,000, the number of deaths to every 1,000 children under one year of age would be 255.56; between one and two, 103.18; between 2 and 3, 47.45; between 3 and 4, 35.13; between 4 and 5, 23.51; from 5 to 10, 9.82; 10 to 15, 3.62; 15 to 20, 5.40; 20 to 25, 9.88; 25 to 30, 11.67; 30 to 35, 14.45; 35 to 40, 16.06; 40 to 45, 18.06; 45 to 50, 24.08; 50 to 55, 27.56; 55 to 60, 43.63; 60 to 65, 43.36; 65 to 70, 79.32; 70 to 75, 100.26; 75 to 80, 148.95; 80 to 90, 232.29; 90 to 100, 246.43, and 100 and upwards, 363.64, showing a death rate of 96.83 per 1,000 of the population of children under five years of age. The lowest death rate was between ten and fifteen years of age, when there were but 3.62 deaths to every 1,000 of the population between these ages, and the highest rate was at the age of ninety years and upwards, when there were 363.64 deaths to every 1,000 of the population between these ages.

14,354 deaths were reported to have occurred in tenement houses, and 4,320 in institutions.

The highest number of deaths reported to have occurred in any tenement house during the year was nine and this number was reported to have taken place at 35 Baxter street; 8 deaths each were reported at 625 East 12th St., and 105 Sullivan St.; 7 deaths each were reported at 290 Front St., 67 Oliver St., 134 West 28th St. and 98 Willet St.; 6 deaths each were reported in 23 houses, 5 deaths each were reported in 83 houses, 4 deaths each were reported in 215 houses, 3 deaths each were reported in 658 houses, 2 deaths each were reported in 2,138 houses and 1 death each was reported in 6,638 houses.

53.15 per cent. of the total yearly mortality was in tenement houses* and 15.99 in institutions. During the past 3 years 43,356 of the deaths reported or 52.61 per cent. of the total mortality was in tenement houses and 13,334 deaths or 16.18 per cent. were reported in institutions. The number of

*A tenement house is defined by law to be a house occupied by more than 3 families living independently of each other.

deaths during the third quarter exceeded by 981 that of any of the other quarters of the year. The highest mortality and mean temperature of the year was in the month of July, the deaths having averaged 99.16 daily for this month, which is 25.17 above the average daily number of deaths for the year. The mean temperature for this month was 77.84 degrees Fahr.

The month of August had the next highest number of deaths, the average daily number being 79.06, and also the next highest mean temperature which was 74.20 Fahr.

The destruction of infants during the warm months although gradually decreasing is still excessive and adds largely to the annual death rate, this mortality is principally observed among the children of the poor particularly those who have been deprived of breast milk and proper nourishment. Among those who dwell in tenement houses, the death rate is highest, this is largely attributed to the lack of means among the poor to provide proper food, fresh air, medical attendance and care, also to the foul odors generated by badly ventilated tenements and the natural results of overcrowding, imperfect drainage, unclean streets, improper removal of ashes, garbage, etc.

This excessive mortality of children during the summer months is verified by the aggregate monthly mortality for the past eight years. The total number of deaths for this period was 230,506. Of this number 65,970 were under one year, 88,891 were under two years, and 111,072, or 48.19 per centum of the total were under five years of age. Of the deaths of children under five years of age 27,341 were from diarrhoeal diseases, 10,733 of this number having died in July, and 6,482 in August, making the total deaths from diarrhoeal diseases, under five years of age, during the months of July and August for the past eight years, 17,215, or 62.96 per cent. of all the deaths that took place from diarrhoeal diseases for the first quinquennial period of life during the eight years. The average mortality daily for the past eight years was 78.89, and during this period there were but three months that had a higher daily average. Those were the months of March, which had 79.83 deaths daily, July, which had 115.29 deaths daily, and August, which had 90.34 deaths daily. The percentage of deaths of children under five years to the total mortality during the eight years was 48.19; for the month of July during this period it was 64.28, for August 57.87, for September 51.52, and for June 50, which were the only months that had a higher percentage. The lowest percentage of deaths of children under five years old to the total mortality during the eight years was in the month of November, when it was 41.10, December 41.43, and April 42.75. These figures appear to demonstrate that the months of July, August, September and June, named in their order of fatality, were the unhealthiest months for children, while November, December and April were the healthiest.

The highest number of deaths during the year from any single disease was from phthisis pulmonalis or consumption; this disease caused 4,466 deaths. Of this number 2,256 were males and 2,210 females. The highest monthly number of deaths was in

March, the number that died during this month being 417.

The most fatal period of life of this disease was between the ages of 25 and 30 years, 280 males and 328 females having died who were between these ages; the nativity of those who died from consumption during the year is as follows: U. S., 1,880; Ireland, 1,473; Germany, 689; and other foreign countries, 424; the deaths of females exceeded the males among the natives of the United States and Ireland and the deaths of males were greater among the Germans and natives of other foreign countries than the females. It is a noteworthy fact that whatever may be the physical condition, mode of living, habits and adaptability to climate of the various nationalities which compose the population of this city, the death rate of the German population is much lower from this disease than the Irish, being 4.2 to the 1,000 of their population, while the Irish was 7.4 to the 1,000, and the other foreign residents 5.2 to the 1,000. The total deaths in this city for the past 5 years from phthisis pulmonalis was 20,910; of this number 8,170—3,990 males and 4,180 females were born in the United States; 7,307—3,442 males and 3,865 females were born in Ireland; 3,357—2,115 males and 1,242 females were born in Germany and 2,076—1,248 males and 828 females were born in other foreign countries.

BRIGHT'S DISEASE.

Nine hundred and fourteen deaths were attributed to this disease during the year, being a decrease of 6 as compared with the number for the year 1877, and 41 less than the number that occurred during the year 1876. Of the total number of deaths 497 were males and 417 females and 27 were colored; 353 were born in the United States; 327 in Ireland; 138 in Germany; 29 in England; 15 in Scotland; 10 in France and the balance in other foreign countries, excepting those of unknown birth. During the past five years 4,525 deaths occurred from this disease, of which 2,392 were males and 2,133 females and 142 were colored; 1,593 were natives of the United States; 1,720 of Ireland; 730 of Germany; 184 of England; 73 of Scotland, and 38 of France. The natives of Ireland lead the deaths from this disease during the years 1874-5-6, but in 1877-8 the natives of the United States had a plurality.

INTEMPERANCE.

The deaths from this cause, and the diseases attributed to the use of intoxicating drinks, were 223. Of this number 46 were born in the U. S., 108 in Ireland, 36 in Germany, 10 in England, 8 in Canada; 3 in France, 2 in Italy, 2 in Scotland, 1 each in South America and Sweden; 2 in Switzerland, and 4 were of unknown nations. 58 were single, 125 married, 24 widowed, and the condition of 16 was not stated. Bright's Disease and intemperance combined were the cause of 44 deaths and nephritis and intemperance, 6. Diseases of the kidneys were more frequently involved from the use of alcoholic liquors than any of the other organs. The number of deaths from intemperance is not exact; physicians often fail to state it on the death certificates out of regard to the feelings and importunities of the relatives or friends of the

decedents. On this account the deaths from this very important cause are incomplete.

CONTAGIOUS AND INFECTIOUS DISEASES.

The deaths from this class of diseases are much more prevalent in tenement houses than in the other class of dwellings, the number of deaths from measles during the year was 272; scarlatina, 1,099; diphtheria, 1,007; whooping cough, 382; typhus fever, 4; and typhoid fever, 245. Of the deaths from measles 188 were in tenement houses; of scarlatina, 702; of diphtheria, 641; of whooping cough, 265; and of typhoid fever, 121. The deaths in institutions from measles were 33; scarlatina, 17; diphtheria, 24; whooping cough, 23; and typhoid fever, 49. The highest number of deaths from measles, (40), scarlatina (144), diphtheria (114), was in the 19th ward, and from whooping cough (80) in the 22nd.

The deaths from diarrhœal diseases, which included cholera infantum, cholera morbus, diarrhœa, dysentery, entero-colitis and diarrhœal enteritis and gastro-enteritis, were 2,945—1,550 males, and 1,393 females; of this number 2,598 were children who had not attained their fifth year, and of the latter 1,049 took place in the month of July. 1,758 of the deaths from diarrhœal diseases took place in tenement houses, 861 in all other kinds of dwellings, and 326 in institutions.

The deaths by suicide during the year numbered 142, being 6 less than the number that occurred during the preceding year; of this number 116 were males, and 26 were females. 42 were single, 83 married, 9 were widowed, and the condition of 8 was unknown. The natives of Germany furnished the highest number of deaths by suicide—58 of this nationality having killed themselves; the natives of the United States followed with 31; Ireland with 22; England with 8; France with 5; Bohemia, Canada and Switzerland with 2 each; Austria, Belgium, Cuba, Holland, Italy, Portugal, Scotland, Spain and South America with 1 each, and 3 were of unknown nationality. The means used by these nationalities for self-destruction are as follows: One Austrian poisoned himself with arsenic; 1 Bohemian shot himself, and another poisoned himself with Paris green; 1 Belgian cut his throat with a razor; 1 Canadian shot himself, and another jumped from the third tier of the city prison; 1 Cuban shot himself; 2 natives of England cut their throats with razors, 1 cut her throat with a knife, 1 drowned himself, 1 jumped from a window, 2 poisoned themselves with laudanum, 1 with oxalic acid; 2 natives of France shot themselves, 1 hung himself, 1 jumped from a window, and 1 poisoned herself with strychnia; 2 Germans cut their arms with knives, 5 cut their throats with razors, 1 cut his throat with scissors, 2 drowned themselves, 13 shot themselves, 14 hung themselves, 3 jumped from windows, 7 poisoned themselves with Paris green, 3 with opium, 2 with arsenic, 1 each with hydrocyanic and oxalic acid, 3 with cyanide of potassium and 1 with strychnia; 1 native of Holland poisoned himself with laudanum, 2 natives of Ireland cut their throats with razors, 1 cut his arm, 1 cut his throat with a scissors, 2 drowned themselves, 4 shot themselves, 2 hung themselves, 1 jumped from a window, 8 poisoned

themselves with Paris green, and 1 with opium; 1 Italian shot himself; 1 Portuguese jumped from a window; 1 Scotchman poisoned himself with laudanum; 1 Spaniard poisoned himself with some narcotic poison; 1 South American poisoned himself with opium; 2 natives of the United States cut their throats with razors, 3 drowned themselves, 12 shot themselves, 6 hung themselves, 1 jumped from a window, 1 poisoned himself with Paris green, 3 with opium, 1 with phosphorus, 2 with cyanide of potassium; 2 of those of unknown nationality shot themselves, and 1 hung himself.

The most numerous occupations of suicides were housekeepers 11, clerks 7, and shoemakers 5.

The New York State census of 1875 showed the population of this city to be 1,041,886, of which 1,026,632 were white, and 15,254 colored. 595,843 were natives of the United States, and 446,043 of foreign countries. Of the natives of the United States 125,268 were under five years of age and of foreign countries, but 2,889 were under this age. The death rate to every 1,000 of the native population was 30.24, and of the foreign, 20.15. The population of the natives of foreign countries residing in this city at the time the census was taken was as follows: Ireland, 199,084; Germany, 165,012; England, 26,913; Scotland, 7,635; France, 9,432; British America, 4,985; Bohemia, 3,133; Austria and Hungary, 3,545; Poland, 5,809; Russia, 2,099; Switzerland, 2,244; Italy, 6,507; Holland, 1,167; Sweden, 1,870; Norway, 527; Cuba and West Indies, 2,285; Spain, 474; Belgium, 478; Denmark, 798; Wales, 667; South America, 293; China, 157; Greece, 65; Portugal, 93; India, 56; Oceanica, 168; Malta, 14; Mexico, 71. According to the census population the death rate to every 1,000 natives of Ireland was 23.24; Germany, 16.34; England, 17.50; Scotland, 19.78; France, 18.24; British America, 25.08; Bohemia, 17.55; Austria and Hungary, 21.16; Poland, 7.92; Russia, 25.72; Switzerland, 29.41; Italy, 15.83; Holland, 31.70; Sweden, 20.86; Norway, 20.87; Cuba and West Indies, 22.32; Spain, 25.32; Belgium, 20.92; Denmark, 25.06; Wales, 25.49; South America, 40.96; China, 19.11; Greece, 30.77; Portugal, 21.50; India, 35.71; Malta, 71.43; Mexico, 14.08, and Australia, 11.90. The death rate of the white population was 25.88, and of the colored, 28.71. Of the parents of the decedents 10 fathers and four mothers were natives of China, 3 fathers and 2 mothers were Greeks, 3 fathers and 2 mothers were Portuguese, 4 fathers and 3 mothers were natives of India, 1 father and 2 mothers were natives of Malta, and 1 each were natives of Australia and Mexico. Of the births reported 2 fathers were natives of China, 1 of Greece, 4 fathers and 1 mother were born in India, and 2 fathers and 2 mothers were born in Mexico. Of the marriages 5 grooms were born in China, 2 in Greece, 1 bride and groom in Portugal, 2 brides and grooms in India, 1 bride and groom in Australia, and 2 brides and grooms in Mexico.

The number of alien immigrants that arrived at the port of New York during the three years ending Dec. 31st, 1878, was 198,147. Of this number 31,548 were natives of Ireland, 61,839 of Germany, 24,443 of England, 5,492 of Scotland, 5,037 of France, 659 of British America, 7,052 of Bohemia,

4,328 of Austria and Hungary, 11,363 of Russia, 4,648 of Switzerland, 9,657 of Italy, 1,541 of Holland, 11,565 of Sweden, 7,399 of Norway, 1,777 of Cuba and West Indies, 1,340 of Spain, 640 of Belgium, 5,068 of Denmark, 1,450 of Wales, 432 of South America, 456 of China, 44 of Greece, 63 of Portugal, 70 of India, 84 of Australia, 4 of Malta, 272 of Mexico, and 28 of unknown nationality.

SELECTIONS FROM JOURNALS.

CASE OF MOVABLE KIDNEYS: REMARKABLE VOLUNTARY CONTROL OVER THESE ORGANS; BY E. C. SEGUIN, M.D.

Mrs. V., an American, aged about 31 years, consulted me on October 7, 1879, for "nervousness" which had lasted eight or ten years. On examination I found that she was hysterical, debilitated, dyspeptic, and that her uterus was moderately ante-flexed and anteverted. Her last child was born four years ago. In the succeeding year, three years ago, she suffered for a whole winter from repeated attacks of severe hepatic colic, vomiting and subsequent jaundice; a few gall-stones were seen in the fæces.

In the course of her detailed story Mrs. V. mentioned that some time after these attacks of colic, she had noticed "lumps" in her abdomen, and that they have been present ever since, making their appearance and moving about under her control. One physician had told her that these lumps were "muscles," another that it was "the liver." They had never caused her any pain.

Examination of the abdomen in the recumbent posture showed a slim built body, but little covered with fat; simple palpation showed nothing abnormal, deep pressure in the left side of the abdomen just below the ribs revealed an obscure sensation of a rounded solid body. The patient now brought down her kidneys. By a powerful expiratory effort, drawing the lower ribs downward and inward, thus compressing the upper part of the abdominal contents, the organs made their appearance under the hand, and could be felt and grasped. They were globular, firm, not tender. The left kidney presented at a point distant 7 cm. from the median line, and about on a level with the umbilicus, or half way between the lower border of the ribs and the crest of the ilium. The right kidney escaped from under the lower border of the liver, and presented at a distance of 9 cm. from the median line; not descending much below the edge of the liver. Upon the cessation of the expiratory effort the organs disappeared from these locations. The left kidney is much more movable than the right.

The other organs of the abdomen seem quite normal in size and position. The urinary secretion has always been free—too free, often.

The interesting points in the case are:

1. The occurrence of double dislocation of the kidneys.
2. The ability of the patient to make the loosened organs descend and present under the anterior abdominal walls.

3. The probable ætiology, through the strong muscular efforts attendant upon hepatic colic.

I may add that statements relative to the uterine and renal displacements were corroborated by my friend, Dr. Paul F. Mundé.—*Archives of Medicine*.

FATAL RESULT FROM SWALLOWING A HALFPENNY TO A BOY AGED TEN, SIX MONTHS AFTER THE ACCIDENT, BY KEITH NORMAN MACDONALD, M.D., F.R.C.P. Ed., ETC.

Most works on the practice of medicine are singularly barren of information on the subject of foreign bodies in the stomach; hence the notion is very prevalent that, when an obtuse body like a small coin finds its way into that viscus it need give rise to little anxiety, as it is generally passed *per anum* without giving further trouble. It ought, however, to be borne in mind that fatal results do occasionally ensue from the presence of even small coins in the stomach; and that the practitioner should be upon his guard not to grant a clean bill of health until the foreign body has been extruded, nor to lessen his exertions towards attaining that object, however favorable the case may appear. Numerous cases have been recorded of children swallowing coins without producing much inconvenience; and I have got a case myself at present of a boy, aged 9, who swallowed a penny on October 28th, 1878, which has never since given rise to the slightest inconvenience.

In Dr. Neale's *Medical Digest*, I find an excellent index to a great variety of foreign bodies which have found their way into the human stomach, and which have been recorded in different periodicals; the most common being buttons, nails, coins, pins and needles, stones and fruit-stones, pencil-case, bars of iron, brass buckle, spoons, knives and forks, portion of horse-shoe, dominoes, door-key, slugs, fish-bones, rosary with seven medals attached, false teeth, etc.; and, of all such substances swallowed, small coins appear to be regarded as the most harmless.

The following case, however, proves an exception to the rule, and may on that account be worth recording.

J. M. W., aged 10, a robust little boy, of healthy parents, accidentally swallowed a halfpenny while playing on January 9th, 1879. It stuck in the pharynx for a short time, but slipped down during his efforts to get it up again before I arrived, about half-an-hour after the accident. At first, he complained of pain at the pit of the stomach, a metallic taste in his mouth, with loss of appetite, and afterwards of pain on taking food, which now and then was rejected about an hour after his meals. He was immediately ordered to have a diet of porridge and milk, which was varied from time to time with bread and milk, rice, and suet-pudding, with occasional doses of castor-oil, which, however, failed to carry off the foreign body. On January 30th, all uncomfortable symptoms ceased, and he appeared to enjoy tolerably good health; his appetite returned, but it was observed that he was gradually losing flesh, and never regained his former vigor, though he had

recovered so far as to be able to return to school, and to appear as if nothing were the matter with him.

On July 15th, however, I was hastily summoned at 8 A.M., as an alarming attack of vomiting of blood had come on without any warning. This hemorrhage had evidently come from the stomach, as it was dark colored and coagulated; and the absence of chest-symptoms and melæna left little doubt as to its source. The hæmatemesis was easily subdued by the internal administration of ice, gallic acid, aromatic sulphuric acid and ergot, the diet being restricted to occasional table-spoonfuls of nearly equal parts of milk and lime-water.

On the morning of the 16th, at the same hour, the hemorrhage recurred; and, as it was now evident that complete rest for the stomach was indispensable, all fluid and solid nourishment by the stomach was prohibited, and the strength supported by nutritive enemata, ice only being allowed by the mouth. During this time the pulse continued quick and thready, 104 beats per minute, falling to 88 in the afternoons; but the temperature remained normal, and singularly enough, no pain or uneasiness was complained of anywhere, except slight restlessness a few minutes before each hemorrhagic attack.

He was treated in this manner up to the morning of the 22nd, with the exception of very small quantities of ice and milk. On that date, he was allowed a little gruel in addition, as he was to all appearance making rapid progress, and spoke quite cheerfully, complaining of no pain or uneasiness, but feeling very hungry. At five o'clock on the evening of the same day, while drinking a small quantity of milk out of a cup, his hand suddenly became unsteady. He remarked that he felt queer, and shortly afterwards fell back pale and pulseless, and died in a few minutes of syncope from internal hemorrhage, the fatal termination having been preceded by a few convulsive twitches.

Unfortunately, a *post mortem* examination could not be obtained. Consequently there is no certainty as to the exact pathological changes which took place; but, reasoning from the history and symptoms of the case during life, and the mode of death, I am inclined to believe that the coin never left the stomach; that its continuous presence and pressure in the folds of the mucous membrane caused softening and ulceration; and that death took place before complete perforation had been accomplished.

Now, as regards treatment, it must be admitted that our best efforts must be more or less of an expectant nature. I would entirely deprecate the use of emetics. In this case, free emesis took place without dislodging the foreign body. At the same time, in similar cases, I would be inclined, if ever I should happen to have another, to continue the soft diet for a prolonged period, placing the patient in a prone position for a couple of hours after each meal, for the purpose of causing the foreign body to gravitate towards the pyloric orifice of the stomach, with a gentle inclination towards the right side; and, when hemorrhage occurred, as in this case, not to permit any food, fluid or solid, by the mouth, but to support life entirely by nutritive enemata.—*Brit. Med. Jour.*

OBITUARY.

DR. FREEMAN J. BUMSTEAD.

The death of Dr. Freeman J. Bumstead, at his residence, No. 24 East Twenty-eighth street, on the 28th ult., removes from the medical fraternity of this country one of its most eminent members. Dr. Bumstead had been suffering since September last from a complication of disorders. He was ever a hard working student. Last summer he was thrown from his carriage while driving in Central Park and sustained a fracture of the arm. While prostrated by this affliction he was attacked with disease of the liver, from which he died.

Dr. Bumstead was born in Boston on the 21st of April, 1826, his father being a prominent merchant and his mother a sister of Nathaniel P. Willis, the journalist, author and poet, and also of "Fanny Fern." He was educated at Chauncey Hall School and afterward entered the English and Latin High School of Boston. In 1843 he matriculated at Williams College and graduated with honors in 1847. He then went to Roxbury, Mass., and taught in the High School there, at the same time devoting his leisure moments to the study of medicine and attendance at the Tremont Medical School. Two years afterward he entered Harvard University Medical School, and the next year went abroad as a surgeon of an emigrant ship. While in Europe he pursued his medical studies in the hospitals of London and Paris. Upon his return to this country in the fall he was appointed house surgeon of the Massachusetts General Hospital. In 1851 Dr. Bumstead received his diploma from Harvard, and again went to Europe. In 1852 he took up practice in this city, and shortly afterward was appointed surgeon to the Northwestern Dispensary. This position he occupied two years and then turned his attention to the New York Eye and Ear Infirmary, on the staff of which he remained until his third departure for Europe in 1872. He was connected with the surgical staff of St. Luke's Hospital and with the hospitals on Blackwell's Island. Dr. Bumstead's superior skill as a specialist caused the College of Physicians and Surgeons to connect him with its staff as Professor of Venereal Diseases. He had acquired at about this time considerable fame by his translations and editing of several European authorities. His success in this field caused him to launch into authorship himself, and he gave the medical world the able and well-known volume on Venereal Diseases. Last summer he was honored by the title of LL. D. by his alma mater, and was for the present year president of the New York County Medical Society and was also a member of the New York Academy of Science. He was married in 1861 to Miss Josephine White, daughter of a prominent merchant of Boston. He had four children, all of whom are at present living. In 1872 he went abroad with his family and spent much time at the hospitals in the large cities of Great Britain and the Continent.

SPECIAL NOTICE.

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LECTURES.

CLINICAL LECTURES ON VENEREAL DISEASES.

Delivered at Charity Hospital, Blackwell's Island.

TO THE STUDENTS OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK, SESSION OF 1879 AND 1880.

BY
F. R. STURGIS, M.D.,

Clinical Lecturer on Venereal Diseases in the University. Surgeon to Charity Hospital, Department of Skin and Venereal, etc., etc.

(Reported for THE HOSPITAL GAZETTE, and Revised by the Lecturer.)

LECTURE III.

TREATMENT OF THE CHANCROID, ETC.

GENTLEMEN:—At our last meeting we went over the description of the complications which are the most frequent concomitants of the chancroid, reserving the question of treatment to a lecture by itself. This then will form the subject of to-day's lesson, and at the outset, I want to impress upon your minds the two cardinal points of treatment, which are, *first, the arrest of the virulent and destructive character of the ulcer: second, cleanliness.* Let me here state that in lectures like these, the remedies I shall suggest are those which have stood the test of time and experience, I shall emphasize them in their order of merit and tell you which ones I prefer; but to go over the entire range of remedies advised would be to waste your time and mine, to your detriment and confusion.

First, then, as to the arrest of the virulent and destructive character of the ulcer, this is done either by the actual cautery or other caustics, in severe cases, and by alterative applications in light ones. Of the first division of remedies the *white iron* or the *galvano-cautery* takes the front rank as a destructive agent, next to that comes the *strong sulphuric acid*, third, chemically pure *nitric acid* and fourth, pure *carbolic acid*. A neat way of using the sulphuric acid is the method known as Ricord's carbosulphuric paste, which is made by taking a small quantity of finely powdered *willow charcoal*, adding, drop by drop, enough of the acid to make a paste of the consistence of thick cream. This is put on with a porcelain or glass spatula, *taking care (remember the undermined edges, gentlemen,) to carry the agent into sound tissue both underneath and on the surface of the edges of the chancroid.* Nitric or carbolic acid may be used in the same way. The advantage of this method is, that besides destroying the virulent ulcer, it makes a firm dressing by the drying of the charcoal on evaporation of the acid,

which, on dropping off at the end of several days, reveals the chancroid almost if not entirely healed up. If you prefer to use the acids in a fluid form, then some subsequent dressing must be used, and of all dressings I infinitely prefer the dry to the wet. One of the best preparations is iodoform *finely powdered* either alone or in combination, thus:

℞ Pulv. Iodoformi..... 1 part.
Lycopodii..... 2 parts.
Triturate well—apply locally.

The lycopodium has probably only a mechanical action, but it absorbs fluid very readily, while the iodoform acts as a local stimulant and alterative. Another good prescription is,

℞ Pulv. Iodoform.
Pulv. Ac. Tannic p. æ.

Triturate and use locally.

This is more astringent than the other.

No. 3 is useful when the ulcer looks flabby and indolent.

℞ Pulv. Iodoform..... 3 i.
Zinci Sulphat..... gr. v.
Pulv. Ac. Tannic..... 3 i.
M. Triturate. For local use.

One serious objection to iodoform in private practice is the strong and pungent smell which it has. Many attempts have been made to overcome this, and Dr. Bronson of this city speaks highly of combining the iodoform with some essential oil, such as peppermint, rosemary and the like, which he claims overcomes the odor without interfering with the alterative action of the drug.

Should you from any cause decide to use a wet in preference to a dry dressing, you will find the formulæ which I give below as good as any you can use:

℞ Ac. Carbol. Cryst..... 3 j.—3 iss.
Aquæ..... ʒ viii.

M.

or

℞ Zinc Sulphat..... gr. v.—xx.
Aquæ..... ʒ ij.

This latter application is an excellent dressing where the ulcer looks flabby and indolent. The strength of 20 grs. to ʒ ij. should only be used when the ulcer is unattended with inflammation; if there be any, the weaker solution is better.

Another very excellent dressing for chancroids is a weak solution of nitric acid, thus:

℞ Acidi Nitrici c. p..... 3 ss.
Aquæ..... ʒ viii.

M.

You observe, gentlemen, that in all the list I have written for your use, the nitrate of silver does not appear. This may appear strange, for the lunar caustic is the one *par excellence* which is daubed over any suspicious looking ulcer. But I say to you, *don't use it* if you mean to use a *caustic*. Nitrate of silver is *not*, in the true sense of the term, a *caustic*; its action is very superficial, inasmuch as it quickly forms with the albumen of the tissues an insoluble albuminate of silver, and it cannot destroy

deeply or thoroughly as do the sulphuric and nitric acids. *Confine its use, then, to those cases where you desire to stimulate indolent slowly-healing chancroids; when you wish to destroy, select some other agent.*

The above rules for treatment are good where the lesion is exposed and accessible, but how shall we act in cases of chancroids concealed either in the urethra or behind a phimosis? The first object to be attained is to relieve the phimosis, the second to check the extension of the chancroid. For the first point you will find nothing better than freely bathing the genitals in hot water (as hot as the patient can bear it, even to the point of faintness) several times daily, and at night wrapping the penis up in the following lotion:

R
Liquoris Plumb. Subacetat.
Tinct. Opii. aa. 3 i.
Aquæ ad. 3 viii.

M.
S: Local use.

In conjunction with the hot-bathing, subpreputial injections should be made several times during the day with a solution of carbolic or nitric acid, in the following manner. With a Taylor's syringe, which is nothing but a flat-billed syringe, made of hard rubber, throw up hot water between the prepuce and glans penis until the return flow shows no shreds or fibres, then with the same instrument inject carefully two syringetuls of either of the following solutions:

R Ac. carbol. cryst. 3 ss.—3 i.
Aquæ 3 viii.

or,

R Ac. nitric c. p. 3 ss.
Aquæ 3 viii.

taking care that the fluid reaches well back to all portions of the fossa glandis. After this is done, a small dossil of lint or prepared cotton should be lightly placed at the orifice of the prepuce between it and the glans penis. This plan of procedure should be steadily persevered in until the prepuce can be retracted and the glans penis freely exposed, when the chancroids can be treated as already advised.

Suppose this happy result not attainable, what then must we look for? It may happen that the swelling and inflammation, instead of subsiding, increases; the entire organ becomes enormously œdematous and purple, threatening gangrene, and it is evident that a very serious condition of things obtains; in fact, gangrene *will* rapidly come on unless active measures are adopted to check it.

Sometimes, happily very rarely, the sphacelus attacks a large portion of the penis, causing very serious consequences, but usually it is confined to narrower limits, and Nature is satisfied when she has relieved the prepuce and re-established the circulation. This she does in the following manner: One or more spots of a purple hue appear upon the swollen prepuce at points corresponding with the imprisoned glans penis beneath; these spots get darker in color, extend and coalesce, and by becoming gradually thinner admit of the exit of the glans penis through the opening, safe and sound. The redundant and useless foreskin may be subsequently

removed by operation. This is the course where everything goes on smoothly and safely, but sometimes active surgical interference becomes requisite. This is the case when it is evident that extensive loss of tissue must supervene before the imprisoned glans penis can be liberated, and here you have to carefully choose between two evils. You must overcome the constriction by cutting through it, but remember what I have already told you about the contagious character of the chancroid. *The cut edges of the incision are sure to become inoculated, hence I advise you not to operate unless it be done to save your patient from something worse than an extension of the chancroid.* But if you have to do it, let me give you one or two hints as to the way. Carry your director between the prepuce and the glans penis in the median line¹ (be careful not to pass it into the urethra) and then slit the foreskin well up to the fossa glandis; that will liberate the glans, and on retracting the prepuce search for the chancroids. *Destroy them at once* with one of the strong caustics already mentioned, *and at the same time, cauterize the cut edges of the wound you have made.* The subsequent dressing will be similar to what I have already advised. The "dog's ears" left by the operation may be subsequently removed by circumcision, *but not until the chancroids have entirely healed.*

If the chancroid be in the urethra, your tactics must vary a little. When situated close to the meatus, separation of the lips will expose the sore, which may be cauterized and dressed with one of the wet preparations previously mentioned. When beyond reach upon separation of the lips of the meatus, you must use a weak injection of carbolized* or otherwise medicated fluid, and afterwards insert a dossil of lint or cotton wet with the same solution within the urethra.

Contraction of the meatus left upon cicatrization of the chancroid may be remedied by slitting the meatus with a bistoury or a meatotome.

Such dressings, indeed all dressings for the treatment of chancroids, should be made three or four times daily at the least.

When the chancroid is seated at the frænum threatening perforation, do not wait for the ulcer to eat its way through, but anticipate matters by cutting the frænum yourself. If hemorrhage result from the small artery seated in the frænum, tie, if requisite, but torsion will check bleeding in the majority of cases. You must then treat the chancroid, which will often turn out much larger than you at first supposed, by the rules I have already given you.

As regards the treatment of buboes, the rules are simple and easily laid down. Until the bubo breaks you cannot be certain whether it is a simple or a chancroidal one you have to deal with. Your first efforts therefore should be to cause absorption; if the bubo is non-virulent, you are often successful, but if, on the other hand, the bubo is due to the

¹ The incisions are sometimes made upon the two sides instead of the median line. This variety of incision is better if the foreskin is very much thickened.

* Ac. Carbol. $\frac{1}{4}$, $\frac{1}{4}$ gr. to aq. 3 j.

absorption of matter from the chaneroid, you will find the swelling extend, the bubo rapidly becomes softer and fluctuation more pronounced. *The moment you are sure of fluctuation, open the bubo*, and this for a two-fold reason. Pus, in my experience, whether due to virulent or non-virulent buboes, is not absorbed when once it begins to form, and under these circumstances it is much better evacuated. If the bubo be a simple one the moment the pus is let out the bubo heals up; if, on the other hand, it be virulent, the sooner you know it the better for your patient. But we will suppose that the bubo has not as yet shown any fluctuation; what methods shall we adopt to prevent the formation of pus? Four; viz., leeches, rest, compression and the local application of the tincture of iodine. This latter must be applied *at least* once every day up to the point of vesication, and as soon as this is accomplished you will find the employment of the emplastrum plumbi of service. Compression, if you can persuade your patient to go to bed, can be best obtained by placing a bag of small shot weighing from two to four pounds or a brick wrapped in flannel directly upon the swelling; if your patient will not keep on his back, use a layer of compressed sponge and a spica bandage, which wet as soon as it is applied, when you will get even and firm compression from the swelling of the sponge. Should your attempts at resolution fail and suppuration threaten, favor it as far as possible by the application of poultices.

A word or two with regard to the application of leeches, should you deem them requisite. *Always place them at some distance from and never on the bubo.* Do not forget this hint, else you will run the risk of inoculating sound tissue from the leech bites, if the bubo should prove to be chaneroidal. It is seldom that leeches are of much service and I should advise you to be chary of their use; they are not superior to the other methods I have mentioned.

The bubo is now ripe and is ready for the knife: how is it to be opened? I prefer doing so by an incision parallel with the long axis of the body first, and then, if requisite, carry the cut upwards and downwards in the direction of Poupart's ligament. *Lay sinuses open wherever you find them* if you hope to make a speedy and permanent cure. After the bubo is thoroughly opened, staunch the bleeding, (exposure to the air will suffice in most cases, if not, use ice cold compresses) and in cases of simple buboes dress the wound with a weak carbolyzed lotion applied on cotton or lint. If however, the bubo be chaneroidal, cauterize it first according to the directions already laid down for cauterizing chaneroids, and make what subsequent dressings you deem advisable, carefully packing the material *well beneath the undermined edges*.

An honest, free incision is, I believe, nine times in ten the best and quickest way to treat these lesions, but I will mention to you two other methods in vogue. One is by aspiration, *i. e.* exhausting the bubo of its contents by suction with Dieulafoy's aspirator or the American modifications of his instrument.

The other is by breaking up the bubo—*i. e.*, churning its contents with a blunt-pointed bistoury, a *small* incision having first been made to admit the

entrance of the bistoury. Both of these methods are, of course, only applicable to the non-virulent bubo, and even here I think other methods are preferable.

If *internal* treatment be thought worthy of trial, it must be borne in mind that it is for its tonic effect more than anything else that it is used. Only one remedy is given with the object of checking suppuration, and that is the sulphide of calcium, which may be administered as follows:

R Calcii Sulph. $\frac{1}{8}$ ss— $\frac{1}{2}$ ss gr.
Mucilag. Acac. q. s.

M. In one pill; of these 3 to 6 daily.

A very neat way of giving it is as a compressed tablet made with the sugar of milk, which can be obtained at most apothecaries.

The tonics most in use are the ferrum sulph. exsicc. gr. i-ij, or the fer. pulv. gr. ij-ii in pill form three times daily; the sulphate of quinine, or dextro-quinine, gr. ij-ii three times daily; and ol. morrhue 3 i-3 ss in similar doses. Of course you will not forget nutritious diet and stimulants p. r. n., but I should advise you to use the latter as little as you can. *I believe that venereal patients do better as a rule without alcohol.*

There is one other subject in connection with these diseases which I wish to discuss with you before bringing this lecture to a close, and that is the one of phagedena. It will be sufficient to recall to your mind the cases of the three women which I have shown you a short time since, where the ulceration has crept over the nates and down the thighs, up the abdomen and along the groins, breaking down the recto-vaginal wall and destroying the labia vulvæ, to impress upon you the necessity of a vigorous treatment. Remember what I said to you in a preceding lecture about phagedena, that it was *due to constitutional, not local causes*, and this will be the key-note of your treatment; *although not to the exclusion of local remedies your main reliance must be upon internal and constitutional measures.* Foremost of this latter class stands the potassio-tartrate of iron, which Ricord called the "born enemy of phagedena," and which he is in the habit of applying both topically and by the mouth. Thus,

R
Ferri et Potas. tart. 3 i.
Aquæ 5 vi.

M

S. Internally, in tablespoonful doses thrice daily; also for local application, p. r. n.

A strongly carbolyzed lotion will oftentimes be of service as a dressing in phagedenic chaneroids, viz:

R
Ac. Carbol. cryst. 3 ij—v.
Aquæ O j.

M

S. Locally.

By far the most frequent cause of phagedena is that condition of the system known as "chronic alcoholism" and which it should be your aim to relieve as far as possible. In such cases you will find the following prescription a servicable one:

R

Ol. Morrhu..... ̄ ss.

Dil. Phosph. Ac..... M. xx—xxx

in one dose.

S. Three times daily, or oftener if necessary.

This seems to act by toning up the depressed nervous system of chronic drunkards and giving the body a chance of combatting the disease.

Other tonics which are suitable in such cases are those which I have previously mentioned.

Among the local dressings the potassio-tartrate of iron and the carbolic acid are the best, but I wish to say a few words about the *destruction* of a phagedenic chaneroid. The only agents which are of any real value for that purpose are the hot iron and the galvano-cautery; the other corrosive agents I have previously mentioned are of little use. In applying either of these agents remember to have the heat *white*, not *red*, for two reasons: first, because it is more effective; second, because it is less painful. Remember also to carry the destruction of tissue, as in the case of the acids, *beyond the diseased parts*.

These constitute the most practical points in the treatment of this important affection and I have, as far as possible, confined myself to giving you what I have found the most efficacious remedies, without cumbering your minds and note books with a quantity of useless prescriptions.

At our next meeting, gentlemen, we will study the initial lesion of syphilis (chancre) both in itself and in relation to the lesion which we have just mentioned.

ORIGINAL ARTICLES.

EXCISION OF THE HEAD OF THE FEMUR FOR UNUNITED INTRA-CAPSULAR FRACTURE.*

BY

JOSEPH W. HOWE, M. D.

Professor of Clinical Surgery in Bellevue Hospital Medical College, New York; Surgeon to Charity Hospital, etc.

MR. PRESIDENT AND GENTLEMEN OF THE ACADEMY:—It is not my intention to take up your time discussing the pathology of intra-capsular fractures; neither will I venture upon the vexed question of differential diagnosis between intra-capsular fractures, nor the general treatment of these fractures. I will confine myself merely to the points connected with this case which I am anxious to have freely discussed and thoroughly examined in all its bearings.

It is a well-known fact that the best result we can expect in the treatment of intra-capsular fracture of the neck of the femur is ligamentous union. In a large number of intra-capsular fractures there is no firm union of any kind of sufficient extent to hold the fragments together. Indeed in our large charity hospitals these ununited fractures, ununited in every respect, form a majority of all the cases brought in for treatment. At least that has been

my experience, and I think it will be corroborated by the experience of other surgeons. These cases are helpless and bed-ridden, and always continue so the remainder of their days; and in our charitable institutions generally take one of two roads—to the almshouse or to the dead house. They are looked upon as being beyond the reach of surgical skill and are turned over to the tender mercies of the hospital attendants. Many of these patients, apart from their injury, appear to be in the enjoyment of good general health. They are neither decrepit nor weak, and were it not for the ununited fracture and the pain occasioned by it, would be considered in excellent condition.

The absence of all attempts at repair is due immediately, I think, to the following causes:

1st. A superficial caries or necrosis of the fractured ends, especially of the upper fragment: not recognizable by any outward signs, resulting from the small supply of blood to that fragment—that portion of the bone, as you are aware, getting its main supply after fracture through a small branch of the obturator in the ligamentum teres. No fibrous tissue can be formed or become attached to this dead surface.

2nd. This necrosed portion of bone acts as a foreign body, and excites inflammatory action in the adjacent bony tissue, thus hastening its disintegration and ultimately causing complete destruction of the upper fragment as far as the globular head. Much of this disintegrated bone is absorbed, but a small quantity may be found as a gritty, sandy detritus in the cavity of the joint.

3rd. The irritation and inflammation of the surrounding soft structures, produced by puncturing with sharp spicula of bone from one or other fragment, but especially of the lower fragment, which has the greatest latitude of motion, and cannot be kept in apposition by splints.

These I consider the immediate causes of complete non-union, and in giving them I do not, of course, exclude the influences of general malnutrition, senile atrophy of the bone, non-apposition of the fragments, and other well-known elements preventing the repair of bone. I merely wish to bring out prominently the main local causes of non-union, when the general health seems to be at par. Now it is to this latter class of ununited intra-capsular fractures that I wish to call particular attention to, and to elicit discussion as to the advisability and feasibility of performing excision for their relief.

Excision of the head of the femur for intra-capsular fracture has only been performed once, and that in the case I am about to describe. While the results are not very remarkable, and while I am aware that a good result in one patient does not prove that success will attend all other operations of a like nature, I have gained enough to satisfy my mind as to the propriety of excision in certain well-defined cases of incurable intra-capsular fracture.

The history of this patient, which is deficient in some respects as a continuous history, is as follows:

Mary Degnan, aged 62, was admitted to Charity Hospital in March, 1876, suffering from intra-capsular fracture of the neck of the femur. She gave no history of syphilis, and had no signs of syphilis about her. There was no hereditary taint of any

*Read before the New York Academy of Medicine Nov. 20, 1877.

kind except a love of whiskey. Of this beverage she indulged in freely without getting intoxicated—so she said.

The fracture occurred three months previous to admission. It was occasioned by slipping from the door-step to the sidewalk on her way out. She was unable to walk after the fall, and suffered a great deal of pain whenever any attempt was made to move the limb. She was carried to Chambers street Hospital, and treated by means of Buck's extension for eleven weeks. At the end of that time the authorities sent her to Charity Hospital.

On examination the limb was found to be shortened to the extent of one inch and a half. The foot was everted. Marked crepitus was obtained by rotating the limb. There was pain on pressure in the groin and behind the trochanter. Every movement of the limb occasioned great pain. There were no external signs of inflammation. A plaster-of-Paris splint was applied, and kept on for two months without any improvement. The comparative immobility of the limb obtained by the splint did not remove the pain, which was very acute on every movement in or out of the bed. The plaster-of-Paris splint was finally removed, and extension again tried in conjunction with the long side-splint. This was continued for six weeks, but, like its predecessor, also proved useless.

She was then taken out of bed, and a wide bandage passed around the sole of the foot of the injured limb, carried up and fastened about the patient's neck—thus supporting the limb, so that crutches could be used in locomotion. This effort was also a failure, and had to be discontinued on account of the pain, and the patient again had to be confined to her bed. At this time the crepitus was as well marked as at the beginning of the treatment.

The patient remained in bed after this for eleven months, without making the slightest improvement. I saw her at various intervals during this time when I was on duty, and I finally concluded to cut down and remove the head of the femur. I explained all the dangers to the patient. I gave her so far as I was able all the objections to the operation, as well as the benefits which might, under favorable circumstances, be derived from it; and she was anxious to have it done.

I performed the operation in the usual manner, by making a curved incision four inches in length behind the great trochanter and cutting directly into the joint.

I found in the cavity about a drachm of inspissated pus mixed with small, sandy particles of bony tissue. The neck of the femur was completely absorbed, with the exception of the debris previously mentioned. There was nothing left but the globular head of the bone and a thin, sharp, spicula of bone an inch in length, which belonged to the lower fragment. The only connection between the upper and lower fragments was a thin piece of fibrous tissue on the upper and anterior aspect of the joint. This was probably the remains of the capsular ligament.

The head of the bone was easily loosened from its attachments and removed. The spicula of bone and the rough edge of the lower fragment were also taken away, as well as all the broken-down tissue in

the cavity of the joint. A strong solution of carbolic acid was then injected, and the wound packed with oakum. Buck's extension and a long side-splint were next applied, and were kept on for a period of six weeks. At this time the wound was healing nicely, and the patient was able to move in bed without pain, something she had not been able to do since the limb was broken. A plaster-of-Paris splint was then put on, and a large opening made in the side of the splint corresponding to the wound, in order to permit a free drainage. When this was done she was able to walk around a little on crutches. This splint was worn for a couple of weeks, and was taken off because there was some ulceration under the border of the fenestra in the back part of the limb.

However, matters progressed favorably, and at the end of three months from the date of the operation, the wound was completely healed, the patient was able to get in and out of bed without assistance. She was free from pain, and able to walk about comfortably on crutches. The limb, however, from long confinement and inaction of the muscles, was completely useless. The knee-joint was stiff, and when flexed gave rise to pain. All this would probably have been obviated, if the operation of excision had been performed twelve months before. It should have been done before the products of inflammation had infiltrated the tissues around the joint or had entered the joint-cavity itself, and before the structures forming the joint had lost their normal, anatomical characters by long-continued inaction and formation of new material. It should have been performed before the muscles had become useless, and the knee and ankle joints stiffened by their long rest. If it had been done in time I have no doubt the patient's limb would be just as useful to-day, as any limb after excision of the joint could be.

I have kept this patient under observation now for nearly two years. She is in excellent physical condition; she is able to go about comfortably on crutches. With the aid of electricity the muscles are stronger and able to do some work. The knee-joint is yet stiff and painful. There is no pain at the hip, except when forced flexion is used. In the ordinary movements there is entire freedom from pain. She can walk a few steps with one crutch, and can lean more weight on the affected side than ever before, and I am in hopes that, in the course of the next year, with a grid-iron shoe that she will be able to use the limb for all ordinary locomotion, with one crutch or a cane.

Now as I said before, this patient is a representative of a very large class of intra-capsular fractures, that have been hitherto allowed to end their days in misery. This one undoubtedly would, if the operation of excision had not been performed. I saw her day after day and month after month, and treated her as well as I knew how, without accomplishing anything. Then the question assumed this aspect in my mind. Here was a patient who was certain to be bed-ridden the rest of her days. She has been in bed already eighteen months, every surgical appliance has been applied without avail. She is in constant pain. She is utterly helpless. She cannot move in any direction, either in or out of bed, without pain. There is no attempt at repair.

There is probably some dead bone there which is keeping up the irritation and pain, and which might be removed together with the head of the bone, without destroying her life. The operation commended itself to my judgment, and the results have proved that in this instance at least, my judgment was correct.

And I now say, that in all cases of intra-capsular fractures of the neck of the femur, occurring in persons who were not very decrepit or exhausted, and when crepitus was well marked, at the end of three months of careful treatment, and the patient confined to bed, that the operation of excision should be performed without further delay. And under antiseptic treatment we might expect from the operation complete relief from pain and confinement to bed, and ability to move around and enjoy life to as great an extent as if the fracture had united in the beginning by firm ligamentous union.

DISEASE APPARENTLY RESULTING FROM SEWER GAS.

BY

F. A. BURRALL, A.M., M.D.,

Attending Physician to the Presbyterian Hospital, New York, etc.

(Prepared from notes furnished by House Physician W. H. Porter, M.D.)

During a recent term of service at the Presbyterian Hospital three patients entered almost simultaneously from lodgings which were thus referred to by one of the Inspectors of the Metropolitan Board of Health:

"I have inspected the premises lately occupied by your patients, M., his wife and his wife's sister, and found a large hole in the sewer-pipe beneath their rooms, from which enough sewer gas could escape to poison the entire neighborhood. The water closets in the rear of the house were badly out of order."

The diseases from which these patients suffered differed considerably in character, yet were such as might fairly be supposed to originate from the contamination of sewer gas. The first who entered was:

J. M., æt. 26, Ireland, married, laborer. Admitted Oct. 3d, 1877.

Family History.—His father is 70 years of age and has always enjoyed good health. His mother died of "dropsy." Brothers and sisters are healthy. His previous history is good. With regard to his present illness, patient says that he has always been perfectly well until nine weeks ago, when he was seized with a chilliness, for which he went to bed, and this disappeared. Next day he suffered from severe frontal headache, and felt an "internal soreness." At this time his bowels were normal. This pain continued three days and was followed by improvement, so that he left his bed and endeavored to obtain employment. He gradually became weaker, however, and his general malaise increased, until about a week since, when he took to his bed in consequence of great weakness and total loss of appetite. Since then he has remained in bed and has been constantly growing weaker. Three days be-

fore admission his bowels became relaxed and he had eight or nine movements during the day. On admission, patient is extremely weak and has little appetite. The face is slightly flushed, pupils normal, tongue deep red with a raw appearance of the edges. The mouth is dry, but there are no sordes. There is slight tympanitis, but no abdominal tenderness, and on the abdomen and in the lumbar region are a few spots which disappear on pressure.

Oct. 3d.—A.M., temp. $101\frac{1}{2}$, pulse 98; P.M., Temp. $105\frac{1}{2}$, pulse 92. Ordered, liquid nourishment, quiniæ sulphatis gr. xx, in the evening for the purpose of reducing the temperature.

Oct. 4th.—A.M., temp. $102\frac{3}{4}$, pulse 98; P.M., temp. $105\frac{1}{4}$, pulse 92; quiniæ sulphatis gr. xx were administered in the evening, but as the temperature was not affected by the drug, an additional ten grains were administered at midnight.

Oct. 5th.—Temp. 102, pulse 88.

Oct. 6th.—Patient received no medicine of any kind yesterday. This morning his temperature was $103\frac{1}{2}$. Ordered quiniæ sulph. gr. xx. The pulse being feeble milk punch was ordered.

Oct. 7th.—A.M., temp. $104\frac{1}{2}$, pulse 102; P.M., temp. $105\frac{1}{2}$, pulse 104.

At 8:30 P.M. the following mixture was commenced:

R

Acid salicylic.....	3 iij
Sodæ bicarb.....	3 ij
Glycerin et Aquæ aa.....	3 ij
	M. S. 5 ss.

Q. 4 h

Oct. 8th.—A.M. temp. $102\frac{1}{2}$, pulse 100; P.M. temp. $104\frac{1}{2}$, pulse 109. As the discharges were too frequent, five grains of the tris-nitrate of bismuth and one-twelfth of a grain of the sulphate of morphia were administered after each evacuation.

Oct. 10th.—A.M. temp. $100\frac{1}{4}$, pulse 105; P.M. temp. $101\frac{1}{2}$, pulse 105. Since the use of acid-salicylic gr. xxx every four hours there has been a decided reduction of temperature. Patient is doing well, pulse is firm. The tongue is still raw looking, but there are no sordes. Urine is scanty.

Oct. 12th.—Doing well. The morning temperature being 100° , the salicylic acid was discontinued.

Oct. 18th.—Patient is improving gradually. The bowels have become constipated, the temperature has fallen to $97\frac{1}{2}^{\circ}$, and there is no more epistaxis or delirium. He takes only brandy and fluid diet.

Oct. 21st.—There is considerable improvement and the intellectual faculties are less clouded. The stools are hard; the morning temperature is $97\frac{1}{2}^{\circ}$, and all the symptoms are favorable. Pulse 82. Patient has been taking quiniæ sulphatis gr. ij. ter in die as a general tonic. The diet consists of milk punch, beef tea, soup and brandy.

Oct. 23rd.—Patient wished to leave his bed this morning, but was not permitted to do so. Treatment as at last date. Constipation is present.

Oct. 25th.—At 5 A.M., Dr. Porter found patient with a temperature of $97\frac{3}{4}$, a pulse of 137, and suffering from acute pain over the entire abdomen. The thighs were flexed upon the pelvis. Fifteen minims of Magendie's solution of morphiæ sulph were at once injected hypodermically, half an

ounce of brandy was given by the mouth, and an enema of oil of turpentine, castor oil, soap and water was also administered. These measures gave relief and the enema was followed by several feculent passages.

Oct. 31st.—Patient improves steadily. The temperature is normal. For the first time in several days he had two passages. He is allowed a little solid food and all medicine has been discontinued.

Nov. 24th.—Patient is well.

The second patient from the same apartments was:

Catharine — Ireland—æt. 24—married (the wife of the patient whose case has just been described). This patient entered the hospital Oct. 18th.

Her family history was good. Her previous history showed that she had enjoyed good health until last spring, when she had an attack similar to that from which she now suffers, but less severe. She has been living with her husband in the apartments, just exchanged for the hospital ward, for the last nine months and has been occupied with sewing and light housework. She has been married since last December. Menstruation has always been normal and she is at present unwell. She gives no history of acute or chronic dyspepsia and her bowels have been regular. The house in which she lives has, as she says, a very bad odor. The water closets are in the rear and she noticed an offensive smell on raising the window of her room, which was on the second floor, at the rear.

Her present illness commenced two weeks since, when, on returning home, she was seized with severe pain in the epigastric region. Her pain was so severe as to cause her to cry out, and was somewhat relieved by rubbing of the back and the application of hot abdominal fomentations. The next day she felt better, and on the day following ate solid food, with meat, but this apparently induced vomiting with great soreness, and she went to bed. Domestic remedies were employed without affording much relief, and after a day or two of suffering, she called in a physician, who pronounced her disease inflammation of the stomach, and thought that she was suffering from the effects of a poison. As no improvement resulted from treatment, she decided to enter the hospital.

Oct. 19th.—On admission patient is jaundiced, feeble, has an anxious expression, and frequently makes violent but fruitless efforts to vomit. The bowels have not moved since entering the hospital.

Ord. \mathcal{R} Pil. hydrarg. gr. iv. pulv. opii gr. ij div., in pil. no. iv; S. a pill every 4 hours.

Oct. 20th.—There is no change in the patient's condition, and she suffers from occasional severe colicky pains. Ten grains of calomel were ordered with hot fomentations to the epigastrium; also an anodyne if necessary.

Oct. 21st.—Ord. quiniæ bisulph. gr. ij, ter in die, and \mathcal{R} hyd. chlorid. mitis gr. ij div. in ch. no. iv; S. a powder every hour.

Oct. 26th.—Since last date patient has become much jaundiced, but is better to-day. She has vomited once this morning, and has epistaxis when she vomits. The great tenderness has left the epigastrium; there has been no movement from the

bowels since night before last. Morning temperature $100\frac{1}{4}$, pulse 84. She took this morning, pill, rhei co. no. iij, also infusi digitalis \mathfrak{z} iss, during the night for partial suppression of urine.

Oct. 27th.—Patient feels much better. The bowels moved last evening; no vomiting since yesterday morning; she has no pain, but the jaundice rather increases than diminishes.

Nov. 5th.—Since last date the general condition of the patient has improved, although the vomiting still remains. The morning temperature (Oct. 29th and 30th) has been 99° , and the pulse 70 to 74. There has been no special change in the treatment. An examination of the urine showed a specific gravity of 1010, a slight amount of albumen, and an abundance of biliary pigment; urates and small granular casts were also present. The vomiting seems more constant, and the little mucus vomited is at times streaked with blood. Dry-cups have been thoroughly applied to the lumbar region. For the past two evenings she has had short attacks somewhat resembling syncope.

It is not necessary to give the daily reports until Nov. 14th, as the condition of the patient did not vary greatly in that time. The nausea, more or less persistent, was met by lactopeptine and pills, each consisting of a grain of opium and half a grain of nitrate of silver, which were given thrice daily. Wine was also administered and lemonade containing the white of egg.

Nov. 14th.—Patient is much improved; she is able to eat an egg and a little chicken; still continues lactopeptine and pil. opii. c. argenti nitrat.; the vomiting has ceased; her skin is becoming clearer.

Nov. 24th.—The nausea persists, and a fly blister was ordered to the epigastrium as a counter-irritant.

From this date until her discharge which occurred Dec. 25th, her condition was in the main a repetition of that delineated in the foregoing notes. The treatment was alterative and tonic and was followed by satisfactory improvement. At date of discharge the report states that "patient has recovered from all her severe and unpleasant symptoms except a little jaundice and gastric irritation. Her general health is much improved."

The third member of the group who had come to the hospital from the room so severely denounced by the sanitary inspector was:

N. D., æt. 31, Ireland, single, a laundress, admitted Oct. 19th—

Patient's family history was good, she has been six years in this country and has never been sick before. Four months ago she came to New York to live with her sister, who then occupied the unhealthy apartments previously referred to and in which Mr. M., now sick in the hospital with typhoid fever, was lying ill. She has been exposed to the same atmosphere as her sister and her brother-in-law.

Four days ago patient says she did not feel well, she had no appetite and experienced general malaise. On the following day she came to the hospital to see her brother-in-law and in the evening had a sensation of soreness in the back of her neck, which was present when she moved her neck or head. On the evening of the next day, which was Wednesday, she took Epsom salts, as she felt no

improvement and was obliged to go to the water closet during the night. When she came back she suffered from chilliness and chattering of the teeth. On Thursday she felt better during the day, but entered the hospital on Friday.

On admission patient has general malaise. She is debilitated, weak, has nausea and but little appetite.

Oct. 20th. Patient had three movements from the bowels to-day. Her temperature at noon was 101° and pulse 100. In the evening the temperature was 101° , pulse 100.

Oct. 21st.—Temperature 101° , pulse 85. Ordered Dr. A. Clark's mixture of salicylic acid, $\frac{3}{4}$ ss. every four hours; also

R

Quiniae sulphatis, gr. x l viij; acid sulph. dil. gtt lx vi, syr. zingiber. ad $\frac{3}{4}$ ij, M. S. 3 j ter in die.

Oct. 26th.—Patient seems to be improving and says she simply feels weak. Temperature $99\frac{1}{2}^{\circ}$, pulse 75.

Oct. 29th.—Doing well, is stronger and has a normal temperature.

Oct. 31st.—Temperature $97\frac{1}{2}^{\circ}$, pulse 60.

Nov. 14th.—Patient suffers from debility but feels well with this exception. Her nausea has disappeared. Has been considerably constipated so that laxatives were necessary. She continues her quinine in doses of two grains three times daily.

Dec. 3rd.—Patient's condition is much improved and she is nearly well. Her only symptom of illness is a slight dizziness. On the 28th of November she was seized with severe pain in the right eye and forehead, and had also nausea and vomiting. The attack was, however, but transitory and to-day as she had a place for employment in prospect she was discharged, cured.

It has seemed to me that a history of this group of three persons who had enjoyed good health previous to the attacks for which they entered the hospital, and who had all been exposed to similar sewer exhalations, might be worthy of record. It is certainly desirable that these cases in which any connection can be shown between an exposure to noxious exhalations and the appearance of well marked symptoms, should be brought to the notice of the profession, both for reference and study.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE HOSPITAL GAZETTE.)

CAPILLARY BRONCHITIS IN AN ADULT.

Annie G., æt. 38, married, was admitted October 19, by the ambulance surgeon, at 12:30. No history could be obtained, except that the patient had had a cough for about a year. The day before admission she was taken with cough and a good deal of shortness of breath. Three weeks before admission, she had some vomiting, pain in the back, swelling of the legs and scanty urine. On admission, the patient was suffering from severe dyspnoea, was very

weak, the face was somewhat cyanosed and respiration 46 to the minute and superficial, pulse weak and somewhat rapid; she complained of no pain, had a cough and sticky expectoration, with occasional streaks of blood. Physical examination of the chest gave normal percussion; auscultation gave over the whole chest few dryish rales, heard in expiration and inspiration. At the upper lobe anteriorly some moist rales are evident. The first sound of the heart is very faint and the second is heard at the apex, loud and sharp. Abdominal organs normal. Ordered 30 cups to the chest, tr. digitalis, gtt. x., whiskey half an ounce every two hours.

Oct. 22.—Cyanosis well marked this morning; the first sound of the heart is indistinguishable and the second loud and trip-hammer character. The physical examination is as on admission, except more moist in character, and sibilant râles are added, and some sonorous anteriorly. Respirations are paid, 50 to the minute, and short. She coughs a good deal; temperature apparently normal to the touch. Pulse rapid and very weak. Expectoration viscid and mixed with some blood. Patient cupped over the chest and kidneys. Infusion of digitalis, $\frac{3}{4}$ ss every hour, and whiskey half an ounce every half hour, were given. Poultices over the chest were also ordered, to be renewed every hour. Two hours later the digitalis was discontinued and carbonate of ammonium, 5 grs. every half hour were ordered instead. Since admission she had passed several ounces of urine. The cyanosis increased every hour; the extremities became cold. She gradually became worse and worse, and at 1:30 P.M. died.

AUTOPSY.

Brain and Cord.—Not examined.

Lungs.—Small cavity at apex of left lung; right lung somewhat œdematous. Smaller tubes show mucous secretion; no secretion in larger tubes; no collapse of lobules.

Liver.—Very firm; at spots showed interstitial thickening.

Spleen.—Firm and somewhat enlarged.

Kidneys.—Showed interstitial change; no acute process or congestion; large cyst in left kidney.

Intestines.—Normal.

SOCIETY PROCEEDINGS.

MEETING OF N. Y. ACADEMY OF MEDICINE, NOV. 20TH, 1879.

Reported for THE HOSPITAL GAZETTE.

The meeting was called to order at 8 P.M., the President, Dr. Fordyce Barker, in the chair.

The minutes of the last meeting were read and approved.

The librarian reported that since the last meeting he had received 7 bound volumes, 4 unbound, 25 pamphlets, 27 journals, and one atlas, the latter the gift of Dr. Gray, of the State Lunatic Asylum at Utica, showing sections of the brain and containing an implied promise of further donations of similar plates.

In motion, a vote of thanks was tendered to Dr. Gray for his contribution to the library.

Drs. Stoddard, of Michigan, and White and Adam, of the U. S. Army, were introduced to the members and invited to seats on the platform.

The statistical committee reported the death of Dr. Oliver White, a former vice-president of the Academy.

Dr. G. M. Smith was appointed to prepare a memoir.

Dr. Alfred Post introduced a patient in whom he had performed the operation of

LUMBO-COLOMOTOMY FOR NON-MALIGNANT DISEASE.

This man had come to the Presbyterian Hospital on the 27th of December, 1877. About a year before he had dysentery, which had continued for some time and was followed by purulent discharges from the rectum. After being treated for a time, he left on the 24th of July, 1878, somewhat improved, but returned Jan. 27th, 1879, with extensive and deep ulceration of the rectum, two or three inches in length. Every remedy had been tried to induce the ulcers to heal, but without success; therefore on the 27th of March, 1879, Dr. Post performed lumbo-colotomy. The wound healed kindly; all the evacuations took place from the artificial anus, except occasionally a little per rectum. The patient wears a compress of oakum and a bandage. The bowels are discharged through the opening in the side a number of times a day, without inconvenience to him. He has gained in flesh and his general health has been much improved. There has been no prolapse. There has been some contraction of the rectum, still it was possible to pass a bougie 57 millimetres in diameter. Dr. Post had no idea that he would ever be able to defecate through the rectum again, still he would endeavor to maintain its perviousness in order to give him that chance. It was rarely that the operation was performed for non-malignant and, so far as he knew, this was the first case.

Dr. Lewis A. Sayre said he could see no difference, as far as the patient was concerned, between a malignant disease and an incurable one. As far as he knew this was the first case in which the operation had been performed for such a cause and it was certainly justifiable.

Dr. Joseph W. Howe said that he had exhibited at a meeting of the pathological society a patient on whom he had performed the operation for syphilitic disease five years previously. When he last saw her she was earning her living as a washer-woman and the vagina, as well as the rectum, was obliterated by fibrous tissue.

Dr. Howe then read the paper of the evening on

EXCISION OF THE HEAD OF THE FEMUR FOR UNUNITED FRACTURE WITH THE CAPSULE.

This paper will be found in full on page 660.

Dr. Albert Weber being called upon by the chair said that he would be inclined to adopt the views of the author.

Dr. Thomas T. Sabine being called upon by the chair, said that he could not see the indications for the operation. In an ununited intra-capsular fracture of the neck of the femur, two things happened:

either the head of the bone was absorbed, or else caries and necrosis took place, in which case, of course, it should be operated upon at once. The operation had been performed by Texter, assisted by Jaeger; the patient died on the twenty-third day. The bone must be given an opportunity to heal; two or three months must be allowed to elapse; and usually the ends of the bone would be rounded off and would give no further trouble. If excision was performed, it would simply remove the inoffensive head of the bone. It is not claimed that it brings down the limb, and in Dr. H.'s case the shortening was one-and-a-half inches. This case came under the category of those in which caries and necrosis had taken place, and which would be an indication for excision in any joint.

Dr. Sayre said that beside Texter, Dr. Batchelor, of this city, had performed the operation. He thought that these cases of ununited fracture should make us think back as to whether the case had been properly treated so as to obtain union in the first place; but a discussion of this was foreign to the paper. As to what was to be done after it had gone beyond the possibility of union, if there were pain and constant irritation, even if there were no sinuses leading down to carious bone, the same principle applied here as to Dr. Post's case, it was incurable and deserved the benefit of an operation. The operation was attended with little danger, and should be performed as soon as all appliances had failed in order to prevent ankylosis of the joints below and atrophy of the muscles from disuse.

Dr. Post said one swallow does not make a spring. There was no doubt that Dr. Howe's patient had had been benefited by the operation. Dr. H. had said that he did not see why the limb should not be as useful after the operation for such a cause as when it was performed for other causes; but it must be borne in mind that the operation was most frequently performed for morbus coxarius and upon young subjects, and it made a big difference as to whether you had a child to operate on or a person of sixty or more. Statistics show that the result is much more favorable in patients under fifteen than in those beyond that age. Still, in such cases as that of Dr. Howe the operation was advisable, though certainly not in the great majority of cases of ununited fracture of the neck of the femur, but only where constant and otherwise irremediable irritation was present.

Dr. White, of the U. S. Army, referred to two cases, one occurring in his own practice, the other in that of Dr. Bennett, of Danbury, Conn. The latter was a simple fracture within the capsule; ligamentous union was obtained, and though the general health of the patient was somewhat impaired by her enforced sedentary habits, still her general condition was satisfactory. His own case was one of gun-shot wound; caries had resulted, and he had removed the head of the bone and considerable portions of the pelvic bones. This case showed him the importance of operating early as there was so much infiltration of the surrounding parts when he first saw the patient that the result was unsatisfactory; but he had no doubt that a much better result might have been attained if the operation had been performed as soon as it became evident that union

could not be obtained. Dr. Howe's paper was valuable as directing attention to a needed reform.

Dr. Howe in closing, said: We all know that operations for caries and necrosis about the hip were common enough; but this was not such a case: there were no signs, before the operation, of caries and necrosis. This was a typical case of simple non-union, and the point he wished to make was that instead of waiting for a long time for fibrous union to take place, this operation should be employed. As to the mortality, the statistics were not so bad; and even if they were, the patients on whom the operation was performed for morbus coxarius were generally in a bad condition, while those suffering from ununited intra-capsular fracture of the neck of the femur were generally, in other respects, in good condition.

It was moved and carried that the next meeting commence at 7:30 P.M., in order to allow the transaction of necessary business.

The Academy then adjourned.

ARMY AND NAVY NEWS.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOV. 22d, 1879, TO DEC. 5, 1879.

Keeney, C. C., Lieut.-Colonel and Surgeon. Relieved from duty at the Presidia of San Francisco, and assigned to duty in San Francisco, Cal., S. O., 142, Div. of the Pacific and Dept. of Calif., Nov. 15, 1879.

Kimball, J. P., Capt. and Asst. Surg. To return with command of Col. Merritt, 5th Cavy, to Rawlins, Wy. T., S. O. 107, Dept. of the Platte, Nov. 20, 1879.

Hall, J. D., Capt. and Asst. Surgeon. His sick leave, granted him from Hdqss. Dept. of Texas, extended one month on Surg. certif. of disability, with permission to leave the Dept. of Texas, S. O. 266, A. G. O., Nov. 25, 1879.

H. E. Brown, Capt. and Asst. Surgeon. When relieved by Asst. Surg. Middleton to report to the Com'd'g officer Ft. Duncan, Tex., as Post Surgeon. S. O. 252, c. s., Dept. of Texas.

M. K. Taylor, Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to go beyond limits of the Department, and apply for an extension of one month. S. O. 251, Dept. of Texas, Nov. 28, '79.

P. J. A. Cleary, Capt. and Asst. Surgeon. To report in person to the Com'd'g General Dept. of the East for assignment to duty. S. O. 271, A. G. O., Dec. 2, '79.

— Middleton, Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Post of San Antonio, Tex., and to relieve Asst. Surgeon M. K. Taylor as attending Surgeon at Dept. Hdqrs. S. O. 252, Dept. of Texas, Nov. 29, '79.

C. Carvallo, Capt. and Asst. Surgeon. To accompany troops ordered from Rawlins, to Ft. Laramie, W. T., and there take post. S. O. 109, Dept. of the Platte, Nov. 20, '79.

Elbrey, F. W., Capt. and Asst. Surgeon, assigned to duty at Fort Bayards, N. Mex. S. O. 238, Department of the Missouri, Nov. 28, 1879.

Hoff, J. V. R., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission for an extension of two months. S. O. 270, A. G. O., Dec. 1st, 1879.

Comegys, E. T., 1st Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Brown to report as Post Surgeon to the Commander's office, Post of San Diego, Texas. S. O. 252, C. S., Dept. of Texas.

Smith, R. E., 1st Lieut. and Asst. Surgeon. His resignation accepted by the President, to take effect April 1st, 1880. S. O. 271, C. S., A. G. O.

LIST OF CHANGES IN THE MEDICAL DEPARTMENT OF THE NAVY DURING THE WEEK ENDING NOVEMBER 28TH, 1879.

Medical Inspector A. C. Gorgas, Pd. Asst. Surgeon Geo. P. Bradley and Asst. Surgeon N. H. Drake. Detached from the U. S. S., Hartford, and waiting orders.

Pd. Asst. Surgeon J. H. Hall, detached from the U. S. S. Marion and ordered to Coast Surgeon duty.

Asst. Surgeon C. W. Rush, detached from the Rec'g Ship at New York and ordered to the U. S. S. Marion.

Asst. Surgeon E. H. Marsteller, ordered to the Receiving Ship at New York.

Pd. Asst. Surgeon J. H. Gaines, detached from the Bureau of Medicine and Surgery and ordered to the U. S. S. Tennessee.

Pd. Asst. Surgeon W. A. McClurg, detached from the Naval Hospital, Washington, D. C., and ordered to the U. S. S. Tennessee.

Asst. Surgeon A. C. H. Russell, detached from the Naval Hospital, Man Island, and ordered to the U. S. S. Pensacola.

Asst. Surgeon Frank C. Dale, detached from the U. S. S. Pensacola and ordered home and wait orders.

CORRESPONDENCE.

NEW YORK, Dec. 4, 1879.

Editor HOSPITAL GAZETTE,

DEAR SIR:—Will you please inform the profession through the columns of your valuable Journal that Dr. Mark Spicker is no longer connected with us in any capacity, and oblige,

Truly Yours,

F. G. OTTO & SONS.

THE HOSPITAL GAZETTE,

A Weekly Journal of Medicine, Surgery,
and the Collateral Sciences.

EDITED BY

ELWARD J. BIRMINGHAM, A.M., M.D.

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NEW YORK, SATURDAY, DECEMBER 20TH 1879.

EDITORIAL.

NEW MEDICAL SCHOOLS.

Two new medical colleges have lately been organized, both of which claim to have adopted a high standard of excellence, requiring a preliminary examination, and a graded course covering a period of three years, with periodical examinations. What these institutions may achieve we are unable to predict, but we do not look for anything more from them than from the better class of medical schools throughout the country. We do not look for reform by the creation of joint stock companies for the purpose of organizing schools and manufacturing professors out of the members of the company; nor do

we believe that these institutions have been organized in the interest of medical reform, but rather in the interest of the members of the joint stock company, who take up the cry of an advanced standard of medical training and endeavor to glorify themselves thereby. We hold that there are too many medical schools at present and there is an urgent necessity of decreasing the number, instead of adding to it. The joint stock companies and self-constituted professors have been a curse to the medical profession of this country and it is about time that every independent medical journal should discountenance their multiplication. What we need is the improvement of the better schools already in existence and the abolition of about fifty joint stock companies which have deservedly made our system of medical training the laughing stock of the world.

PROPRIETORSHIP AND REPETITION OF PRESCRIPTIONS.

The question as to the proprietorship of a prescription has often arisen, and as often been abandoned without a satisfactory solution. The patient claims it on the ground that he has paid for the advice of the physician, which advice also includes the prescription, and the druggist claims it on the ground that it is an order from the physician to him to compound certain medicines. In France the right is conceded to the patient, and generally, this is so in Great Britain, and it seems but right that he should be furnished with at least a copy of it, so that in the necessity of repetition he will not be compelled to have it compounded by the same apothecary, at whose mercy he would otherwise be. This plan would sometimes occasion an injustice to the physician by having a prescription that is "good for a cough," or "splendid for rheumatism," or "the best 'clap' mixture," recommended and used by a score or more of patients without his knowledge. Again, in the event of morphia or chloral being prescribed, the patient would be enabled to procure it at any and all times upon the prescription, and there is no doubt but that many inebriates have been made in this way. We would suggest as the best solution of this question that the right of ownership be conceded to the patient; but that the physician should indicate on the prescription how long it should be used—for a week, month, three months—as the case would require. At the end of this time all ownership should terminate, and the druggist should refuse to compound it.

SELECTIONS FROM JOURNALS.

CATGUT AS A CARRIER OF INFECTION.

Prof. Zweifel, of Erlangen, recently met with a case which led him to the conclusion that catgut might be the unsuspected source of infection. He operated on a vesico-vaginal fistula which was so small that it could only be seen by forcing milk through it, using catgut for the suture. The patient was taken on the twelfth day following with all the symptoms of pyæmia, and died on the twenty-second day. The autopsy showed that the source of the infection was in the pelvis and it could only have been absorbed by the small freshened surface around the fistula. As all the instruments used in the operation had been soaked in a 5 per cent. solution of carbolic acid, the catgut was suspected as the source of infection. This suspicion was strengthened by reading in a foreign journal an account of an operation for ovariectomy in which catgut was used and where everything had gone on quite easily and satisfactorily at the time of the operation, but had resulted fatally from septic infection, notwithstanding the careful carrying out of the antiseptic method. He therefore caused the catgut to be examined microscopically, and found portions of it filled with bacteria. As he was about to do an ovariectomy, he ordered the catgut to be previously examined. Small pieces were cut off and unrolled in the same carbolic oil in which they had been preserved. They also were found to be swarming with the same pests. Fresh and clean catgut was therefore chosen, and carefully examined by the microscope before being used. The operation succeeded perfectly. The professor is certain that had the other specimen been employed, death would have resulted.

He thinks the decomposition of the catgut must have taken place in the original filling of the bottle, or possibly afterwards, from the evaporation of the volatile carbolic acid. This he thinks more likely than that the catgut was originally made of foul material. He insists that all catgut should be examined by a competent microscopist before being used in order to make sure of its purity.—*Centralblatt für Gynäkol. Arch. of Med.*

PERFORATION OF THE WALLS OF THE UTERUS BY THE UTERINE SOUND.

Dr. C. Liebmann, of Triest, has observed two cases of perforation of the uterus by the sound, without bad results. The first patient had born children and was perfectly healthy. The perforation was made four times and the sound carried up as far as the umbilicus. There was a slight resistance when the sound passed the fundus and a little blood followed. The patient remained perfectly well.

The second case was a nullipara. The fundus was very tender and the sound was accidentally shoved through. The temperature rose to 38.9, but the next day the patient was entirely well.

These cases led Dr. L. to make a series of inter-

esting experiments on the bodies of 100 women. The experiments were very carefully made and the results are related.

In 23 cases, perforation of the uterus was *very easy*, and in 42 cases it was *easy*; in none of these cases had post mortem softening taken place. All of these cases had died of phthisis, that being the principal cause of death in the author's hospital.

The cases in which the perforation was made with difficulty, were all women who had borne children. In 78 cases the fundus was perforated in the neighborhood of the tubes. Fifteen times the anterior or posterior wall and once the anterior wall directly over the internal os. The author gives a very complete review of the literature of the subject. He discards entirely the idea of catheterization of the tubes.

Aside from softening of the walls from local diseases or sub-involution, he gives two special factors as favoring the occurrence of the accident.

1. Certain alterations in the uterus brought on by the general condition of the individual. 2. Diminished mobility of the uterus from peri-uterine affections. In the first he mentions atrophy and tuberculosis of the uterus, carcinoma of the body and myomata so situated as to cause atrophy of one part of the organ, or a marked œdema. In the second he names consumptive diseases, senile marasmus, premature atrophy in a result of prolonged nursing, tuberculosis, and disturbances of circulation from heart disease.

Particularly important is the observation of the ease with which a uterus partially or wholly fixed can be perforated. The accident is particularly likely to happen in attempting to replace by the sound a uterus wholly or partially fixed. He declares that the cases of bad results or sudden death from peritonitis following the sounding of the uterus, are due to a perforation not diagnosticated.—*Centralb. für Gynäkol. Arch. of Med.*

COMMUNICATION BETWEEN THE AORTA AND PULMONARY ARTERY.

At a meeting of the Berlin Medical Society in March. Dr. B. Baginsky exhibited a heart and large vessels, in which there was a direct communication between the aorta and pulmonary artery, the ductus arteriosus being obliterated. He had shown it to Professor Virchow, who was unable to remember having seen anything similar; nor was a similar malformation depicted by Rokitansky in his Atlas of defects of the cardiac septum. The specimen was taken from a boy aged four, who had been under Dr. Baginsky's observation almost from birth. When eight days old the child had symptoms of bronchial catarrh; it had an aphonic hoarse cough, but there was not much dyspnoea. In a few days Dr. Baginsky examined the heart, and found at various points a large number of systolic and diastolic murmurs, with resistant dulness over the right ventricle, and rather irregular action of the heart. The pulse was irregular. Dr. Baginsky came to the conclusion that there was a malformation of the heart, but of what kind he could not determine. In the course of the succeeding four years, the child had numerous attacks of bronchial catarrh; it grew nor-

mally, however, and was strong, but pigeon-breasted. Last year it had nephritis, probably of scarlatinal origin, followed by hæmaturia and afterwards by suppression of urine. In December symptoms resembling whooping-cough appeared. Convulsions of the whole body took place repeatedly, and the child died. Dr. Baginsky examined the body. The heart weighed 250 grammes (about 8¾ ounces), and was 12½ centimetres (nearly 5 inches) in width. There was considerable hypertrophy of the right ventricle, the wall being 1.4 millimetres thick. The left ventricle was less hypertrophied, but was much dilated. The semilunar valves on both sides were normal. The musculi papillares of the auriculo-ventricular valves were atrophied. The ductus arteriosus was normally obliterated. Between the aorta and the pulmonary artery there was a communication, about a centimetre in extent, with a thickened and indurated edge. The opening was nearly triangular, and its base was on a level with the upper free edge of the posterior semilunar valve of the pulmonary artery, and about half a centimetre above the free edge of the aortic valves. Professor Virchow was of opinion that the hypertrophy of the right ventricle was probably congenital, and that the dilatation of the left ventricle had taken place after birth. There was parenchymatous nephritis on both sides. The remaining organs were normal.—*Brit. Med. Jour.*

ON THE TREATMENT OF FIBROUS TUMORS OF THE UTERUS.

At the late International Medical Congress at Amsterdam, Dr. J. De La Faille read a paper on this subject, of which the following are the conclusions:

1. The mode of treatment of fibroid tumors of the womb depends principally upon the flow of blood that accompanies them.
2. The seat of the tumors and their development modify the treatment.
3. Internal medication offers but little prospect of success, though it may be tried in intra-parietal fibromas. The same may be said of alkaline baths.
4. One of the most rational modes of treatment of intra-parietal fibromas is that of subcutaneous injections of ergotine.
5. The plan of dilating the womb by means of the prepared sponge or laminaria, is not without danger; it requires at least a prompt renewal of the dilating substances.
6. Linear écrasement is préférable to any other method for operating upon fibrous polyps.
7. Intra-uterine fibromas are best removed by enucleation. The same applies to sub-peritoneal fibromas.
8. In case of gastro-hysterotomy, intra-peritoneal treatment of the pedicle is preferable to extra-peritoneal treatment.
9. Total extirpation of the uterus offers some great advantages.
10. Castration is seldom indicated in cases of fibrous tumors of the womb.—*Archives Gén. de Médecine*, Nov. 1879.

SYPHILITIC HERPES.

The patient, an inmate of the London Hospital, and under the care of Mr. Jonathan Hutchinson, was

an unhealthy-looking man, a discharged soldier, aged thirty-five, with peculiar eruption running round the left side of his chest, at once recognizable as a form of herpes zoster, or "shingles." There was nothing in the position or general outline of the eruption that would distinguish it from ordinary herpes zoster, but it would have been difficult to fail to notice at the first glance that its aspect was in some way different from what is usually seen in a simple case of this disease. On inquiry it was found that the eruption had existed for no less a period than nine months. The patient stated, moreover, that it was "much better" a few months before, but that it broke out again in (what he termed) a second attack, although the side had never been entirely free from eruption, even in the interval of amelioration. On examining the eruption closely, it was seen that in some places there were distinct and prominent scabs; the eruption here had evidently taken an ulcerative action, and approached in some little degree to the characters of rupia. The skin where the eruption had departed was of a dusky-red color, and presented here and there a faintly-depressed scar, showing that there had been a loss of tissue. It was ascertained the man had had undoubted syphilis; in fact he had a large periosteal node on the forehead at the moment. On this account, but still more from certain peculiarities of the eruption itself, Mr. Hutchinson said he was of opinion that this was a case of syphilitic herpes, and as such a very rare affection.

"Herpes," Mr. Hutchinson went on to say, "is, as is well known, a skin disease of nerve origin. It is produced through some particular nerve influence, and, having regard therefore to its origin, we must consider the present case not as an example of common herpes occurring in a syphilitic patient, and so possibly somewhat modified by that disorder, but as a case where the poison of syphilis has caused such nerve changes as to bring about this eruption. The action of syphilis in this case is through the nervous system, and the eruption must be considered as an expression of some syphilitic disturbance of nerve. Thus we see syphilis as an imitator of typical skin eruptions, and, as I have often stated, it rarely, very rarely, imitates herpes. I consider this eruption to be the syphilitic form of herpes on the following grounds: The man is syphilitic. The skin disease persists—it has persisted for nine months, with a recurrence of eruption during that time, whereas common herpes tends to spontaneous cure, as do all skin affections that have their origin in the nervous system. It is most rare, too, for common shingles to persist for so long a period as nine months. It is true that it is sometimes very tardy in its appearance, but, I think, never to such a degree as obtains in this instance. The scar left here and there by the clearing up of the eruption is depressed, distinct and of a dusky-red color. The eruption is at places almost rupial. Finally, there is one feature about the case that makes it—as a case of syphilitic herpes—very peculiar. Syphilitic herpes is nearly always symmetrical on both sides of the body, but in the present instance the eruption appeared on one side only, the right chest being perfectly intact. The case, therefore, must be regarded as extremely unusual."—*Lancet*, Oct. 25, 1879.

CONGENITAL SEBACEOUS DISEASE OF THE HEAD AND NECK.

Dr. R. Crocker read notes of this case before the Clinical Society of London. The patient was a male infant, aged 6 weeks when brought to University College Hospital. He was born with patches on the skin of the occiput, left side of the head, both cheeks, and the front of the neck, this last joining by processes those on the cheeks. Small patches existed on the left alæ nasi and inner angle of the left orbit, and in the vicinity of the large patches. The patches varied much in size, the largest, on the occiput, measuring $9\frac{3}{4}$ by $2\frac{3}{8}$ inches in its greatest dimensions, the smallest about one-fourth of an inch in diameter. They were irregular in shape, and narrow processes branched off them; they showed signs of being formed by the coalescence of several into one by small sulci, sometimes with a slightly raised edge at the borders of the sulci. The whole patch was slightly raised, the edge more than the rest, and these edges consisted of comedones, with their usual black tops. These were also seen—but not so close together—on the borders of some of the dividing sulci, and occasionally one or two sometimes suppurating on the surface. The general surface at first sight appeared smooth, but, on looking at it closely, it was seen to be finely granular, of a pale yellowish-red color, but varying in tint, growing redder when the child cried, and paler when exposed to cold. The patches on the scalp were quite hairless; they had not increased in size since birth, and the mother thought they were less prominent, but not smaller. The child was well nourished; the skin was healthy, except for these patches, and had not had any other kind of eruption. There were no snuffles when it was first brought to the hospital, but it caught cold three days afterwards, and then snuffled slightly. There was no evidence of syphilis besides this, either in the infant or in his sister, three years old, the latter being in good health. The mother had not been ill, or even ailing, since her marriage, five years before; and the father had never had a day's illness for the seven years she had known him. The presence of comedones on the edge, and occasionally on the surface, suppurating like ordinary acne, pointed to the case being one of sebaceous origin; and, though the surface might be of a different nature, the individual granules had much the appearance of milium on a small scale, with a yellowish tint. The case appeared to be unique.—*Brit. Med. Jour.*

SYPHILIS: REMOVAL OF CRANIAL BONES AND OF LEFT EYE: RECOVERY.

Before the Clinical Society, of London, Mr. A. T. Norton read notes of a case of syphilis, in which the frontal portion of the frontal bone, the roofs of both orbits, the ethmoid bone, parts of both superior maxillary bones, the vomer and palate, the left wing of the sphenoid bone, and the left eye were removed. The operation was followed by complete restoration to health. The subject contracted syphilis in June, 1866. He was of a strumous constitution, having suffered previously from strumous psoriasis, and since acquiring syphilis, from

strumous arthritis of the left knee-joint, followed by ankylosis. The chancre healed in about five weeks, and was followed by an eruption of small vesicles and sores every two or three months for more than a year. The glands of the groin were swollen; but the patient never suffered from sore-throat, nor from any cutaneous eruption. His habits were intemperate; and, about a year after the chancre, syphilitic ulceration attacked the matrix of several toe-nails. About Christmas, 1873, he had a severe attack of syphilitic laryngitis, and in 1875 a suppurative and foul discharge flowed from both nostrils, followed by necrosis of the bones of the nose, and of the left palate and superior maxilla. From time to time, pieces of bone were removed by various surgeons, and in June, 1876, he came under Mr. Norton's care. At that time, the ethmoid bone was necrosing, and a suppurating node occupied nearly all the frontal portion of the frontal bone. All stimulants, of which he had previously been taking a large quantity, were prohibited, and the iodide of potassium treatment was stopped. Quinine and iron and opium, with milk and simple diet, were advised, and the patient was not allowed to undergo any change of temperature. In October, 1876, sight was destroyed in the left eye, and the left half of the sphenoid bone was separating: this mass of bone was ultimately removed through the nose; a large part of the left superior maxilla having previously been taken away, allowing space for the operation. It was now evident that the frontal and ethmoid bones would be destroyed, and the suppuration was exhausting. The patient was, therefore, never allowed to leave the house, but kept in an unchanging temperature of 62° . On July 4th, 1878, the bones were in a fit state for removal. An incision was made perpendicularly upwards from the nose to the sagittal suture, and from each end of this central incision lateral incisions were carried outwards; in the upper part along the coronal suture, and in the lower part along the orbital ridges. The flaps thus formed were turned outwards to expose the whole of the frontal bone. Gentle traction and manipulation brought away the frontal portion of the frontal as far outwards as the temporal ridges, the cribriform portion of the ethmoid bone, and the roofs of both orbits. The left eye being inflamed and suppurating, and its sight gone, it was also removed. Granulations rapidly sprang up, and the discharge was no longer fetid; some bone was re-forming over a part of the forehead. Mr. Norton considered it astonishing that health could have been maintained under the prolonged and exhausting suppuration which occurred during the separation of the extraordinary quantity of necrosed bone, especially as much of the pus, which was horribly foul, found its way into the stomach through the nose. Further, it was remarkable that the brain should be in no way affected, notwithstanding that not less than its entire anterior third had been denuded, and was covered in by cicatricial tissue only. As far as treatment was concerned, the drugs usually administered in syphilis were avoided, the object being to maintain a desire for food, and—looking upon a patient suffering from syphilis as one predisposed in the extreme to inflammation—to avoid all changes of temperature, and so withdraw the patient from the

influence of the most common exciting cause of inflammation. Mr. Bryant thought it would be well to postpone the discussion on this case until the portions of bone could be produced, the point of interest in connection with it centering on the formation of new osseous plates. By examination of the patient (who was present in the room), he could discover only one place where it was not re-formed; and the extreme rarity of any such restoration after removal of syphilitic caries rendered it important to have the complete details.—*Brit. Med. Jour.*

NEWS ITEMS AND NOTES.

A suit of considerable interest has lately been decided in the London courts. The plaintiff was Dr. C. D. Phillips, who brought an action for damages against the London and Southwestern Railway Co. for injuries received in a collision on the road. The plaintiff had had a practice of \$25,000 to \$30,000 per year before the accident, but owing to a severe injury to the spinal cord claimed that it was improbable that he would ever be able to resume his professional duties. The case was decided in favor of the plaintiff, who was given \$30,000. He held that the damages were inadequate and appealed the case to a higher court, where it was tried before the Lord Chief Justice and a special jury. He was awarded \$80,000.

Conflagration From The Use of the Thermo-Cautery During Anæsthesia from Ether.—We read, in the *Journal de Médecine et de Chirurgie Pratiques* for October, 1879, that M. Poncet of Lyons, having anæsthetized a woman with ether, in order to straighten her leg bent by arthritis of the right knee, intended to follow up the straightening by the actual cautery. One hundred and fifty grammes of ether had been used, as the patient did not easily come under its influence. The window had been opened, the room was large, and the ether-bag was to a certain extent separated from the thermo-cautery. Suddenly, the room was in flames, and the bed was enveloped in them. The ether-bag was thrown down on the floor, and the patient quickly removed. She was scarcely touched; but Dr. Gros, who was giving the ether had his hands severely burned. Similar accidents have also been noted elsewhere. MM. Cazeneuve and Poncet, who write on this case in the *Lyon Medical*, have made some experiments, which seem to show that the accident cannot happen with the thermo-cautery heated to red-heat. Metal heated to this point is extinguished in ether and forms aldehyde. But when the thermo-cautery is heated to white-heat, such an occurrence may take place. They impress the necessity of great care, and the necessity of not allowing any rise in temperature of the thermo-cautery. It is, however, a question whether it be not wiser to abstain from anæsthesia by ether whenever artificial light, or red-hot platinum or iron, is essential to the operation. It is not platinum alone which ether vapors. It is on record, that when local anæsthesia by ether-spray was in vogue, M. Dolbeau, at the Hôtel-Dieu in Paris, conceived the idea of thus anæsthetizing

the hemorrhoids of a man whom he was about to cauterize with the red-hot cautery. The ether-spray was suspended, the red-hot iron was applied, but the dense ether-vapor took fire. The hemorrhoids were not affected; but the unfortunate patient was severely burned, as were also the hands of the assistants.—*Brit. Med. Jour.*

Medical men have, during the past few years, found a lucrative field for literary work in our high-class monthlies and quarterlies. Medical subjects are interesting. We have received some letters on this subject. If Dr. Great-Gun is allowed to write an article in the *XIX Century*, on some medical subject, and to append his name, why should not Dr. Small-Gun write to the *Village Gazette*, and sign his name to some medical paper? What an advertisement it would be for him. But an outcry would be at once raised against such a procedure by the local professional men. There does not seem at first sight to be any flagrant violation of professional customs in writing for lay journals. There is this danger. It may be abused, and become another method of indirect public advertising.—*Med. Press.*

At a meeting of the Medical Society of Lower Austria on June 28th, Dr. Pollak read a paper on the "Treatment of Whooping-cough," in which he recommended insufflation of quinine, prepared according to the following formula: Tannate of quinine and bicarbonate of soda, of each five parts; powdered gum arabic, one hundred parts.

Frozen Sections.—Professor Rüdinger of Munich exhibited at a meeting of the Medical Society of Munich, held on the 16th of last month, an interesting set of sections which he has recently made, illustrating the topographical anatomy of the human body. The preparations were made by freezing the body of a well developed adult male, and dividing it into eight longitudinal sections. The skin on the posterior surface of the body was left intact, and in that way the various sections were attached to one another, and could be turned over one after the other like the leaves of a book. When the external sections were thrown open, all the viscera and structures of the trunk could be seen in position. The sections have been mounted in the erect position, which makes them very suitable for clinical demonstrations.

In surgical instruments and mathematical and astronomical apparatus, says the *Revue Industrielle*, French workmanship has deteriorated so much that the attention of the Government has been directed to the subject.

A Daring Operation.—An operation was recently performed by Péan, of Paris, which for boldness is perhaps unique. The patient was suffering from cancer of the pyloric extremity of the stomach, completely blocking up the passage. He removed the pylorus and stitched the severed end of the stomach to the duodenum. The patient died on the fifth day.

Absence of Parietal Bone.—Dr. George Ross reported to the Richmond Academy of Medicine the case of a child five weeks old, apparently healthy and vigorous, which nursed and slept naturally, but with entire absence of ossification of the right parietal bone. A sensation as of feeling parchment was imparted to the finger as it was passed over this portion of the head.

Two hundred and eighty-nine prisoners in the penitentiary at Frankfort are down with diarrhoea. A communication between the drains and the water-supply of the institution is supposed to have caused the outbreak. Meanwhile the Kentucky Penitentiary is the most disgraceful affair on top of the civilized earth, and it behooves every doctor in the State to hammer this fact into his representatives as far as he may be able to do so. There is no sentimentality in being disgusted at the terrible accounts which reach us of the misery, disease, and death springing from the filthy, overcrowded, and generally ill-conditioned prison-house with which the parsimony of our legislators has disgraced the State. No doctor should join in the hue and cry raised by a certain portion of the political press against the Governor for his very proper efforts to mitigate the evil.—*Louisville Med. News.*

The Morgue.—In accordance with the vote passed by the French Government, some important works are about to be executed at the morgue, under the direction of Dr. Brouardel. All the necessary arrangements for teaching legal medicine will be secured—viz., a hall for autopsies, laboratories, a library, apparatus for the preservation of the bodies, etc. A commission has been appointed, consisting of Delpech, Bourneville, Brouardel and Bonnet, to select the most scientific and, at the same time, most economic apparatus for the preservation of the bodies.

Suffocated in a Cistern.—Mary Miller and her son John, who lived at the corner of Flushing and Wyck-off avenues, Williamsburg, were suffocated lately by inhaling the foul gases of a disused cistern. The boy, whose age was but eight years, had, by direction of his mother, descended into the cistern to remove a lot of rotten grain placed therein last August. He had scarcely reached the bottom when his mother saw him reel and fall down. She hurried to his assistance, when she was also overcome by the noxious atmosphere of the cistern. A daughter who had witnessed these occurrences ran to a neighbor, who hurried to render succor to the woman and child. Mrs. Miller, being still alive, was first carried to the surface, only to expire a few moments after her rescue. The dead body of the boy was then taken out.

A Double Diagnosis.—An amusing story is told, in the November number of *Le Practicien*, of a distinguished *savant* at the dinner of the Anthropological Society, Paris. It was not delivered publicly, but whispered in the ear. We have heard a similar tale ascribed to some one else. I visited, said the narrator, a young man aged 15, who, without any apparent cause, was getting weaker from day to day. Sus-

pecting albuminuria or diabetes, I asked for the urine of my young client for examination. What was my surprise to find in it a quantity of kiesteine. Assuredly this was not the urine of my patient. On my next visit, in presence of the family, I said you are trying to humbug me. I asked for the urine of this patient, and you have sent me that of a pregnant woman, Scarcely had I pronounced these words, when two persons fainted; the young man and the *bonne* who had opened the door.

She cried out, "Ah! M. Ernest, you have done for me." Light was thrown at once on my mind.

The maid knew why the young man had fainted. She had sent me her own urine, so that unconsciously I had made a double diagnosis. There is another story of the same kind, though in verse, which is untranslatable.—*Med. Press.*

Nearsightedness and the Color of the Eyes.—M. Nicaté stated, at the meeting of the French Society for the Advancement of Science, that as one of the results of his examination of 3,434 eyes in relation to myopia, at Marseilles, this defect was observed far more frequently in light than in dark eyes, blue and gray eyes furnishing 18 per cent., and black and brown eyes only 11.27 per cent.

At a meeting of the Med. B'd of the Presbyterian Hospital, held Nov. 12, 1879, Drs. Wm. Detmold, Jared Linsly and Gouverneur M. Smith were appointed a committee to prepare resolutions on the decease of Dr. Oliver White, which resolutions we herewith respectfully submit.

WHEREAS, Dr. Oliver White, an earnest friend of the Presbyterian Hospital from its incipency, and for a number of years President of the Medical Board, has been removed by death,

Resolved, That the Medical Board desires to express and to place on record its warm appreciation of the loss the Hospital has sustained by this bereavement.

Resolved, That Dr. White, during the inception of the Hospital and before it was erected, interested himself in promoting the success of the benevolent enterprise and in engaging both the influence and the means of a number of the medical profession in promoting the humane purpose of the institution.

Resolved, That Dr. White, to the close of his life, was unrelaxing in his interests to the Hospital, and, when smitten with disease, persisted in performing his duties until overwhelmed by his malady.

Resolved, That as Consulting Physician and as President of the Medical Board his counsels were wise, being governed by intellectual vigor and Christian principle, and that the successful career of the Hospital has been due, in no small measure, to his watchfulness and guidance.

Resolved, That a copy of the above preamble and resolutions be sent to the family of the deceased, to the Board of Managers of the Hospital, be entered on the minutes of the Medical Board, and be published in the Medical Journals.

S. T. HUBBARD,
Chairman of the meeting of the Medical Board,
Presbyterian Hospital.

JAMES V. S. WOOLLEY,
Secretary Medical Board.

THE HOSPITAL GAZETTE.

A Weekly Journal of

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EDWARD J. BIRMINGHAM, A.M., M.D., EDITOR.

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NEW YORK, SATURDAY, DECEMBER 27TH 1879.

EDITORIAL.

TO OUR SUBSCRIBERS.

With the advent of the new year, and the beginning of our seventh volume, a material enlargement and change in the typographical appearance of the GAZETTE will be inaugurated. We have made so many changes since the publication of the initial number of the journal that we hesitated before taking this important step, but feeling assured that the profession will stand by us in any effort to improve, and will encourage us, as in the past, with the substantial aid which is necessary to the success of any undertaking, we determined to evolve the journal into the form and individuality which it is intended shall be retained for the remainder of its existence.

When the GAZETTE was first published it was intended simply as a chronicler of the practice of the several larger hospitals, and hence the name HOSPITAL GAZETTE was given to it. But the demands of the profession have compelled such a marked deviation from the editor's original idea of what the journal should contain, that the name no longer conveys the idea that it makes room in its pages for all that pertains, directly or indirectly, to medical science. Consequently, it is deemed advisable to have it known hereafter as the MEDICAL GAZETTE.

As the circulation and influence of the journal have increased the demands upon its columns by the profession have grown so that with our present space we can no longer make room for the articles designed by the authors for our pages, and during the past six months we have been compelled to decline the publication of several excellent papers simply because we could not make room for them. We have therefore decided to double the amount of reading matter, and in order to present it in as compact and neat a form as possible, the journal will henceforth be set in brevier type (in which this article is set), and in three columns each $2\frac{1}{2}$ by $9\frac{1}{2}$ inches. By this arrangement we will be enabled to give our readers each week a larger amount of reading matter than is contained in a single number of any weekly or monthly medical journal published in this country.

As we believe it to be unjust to our subscribers to burden the journal each week with a mass of advertisements, we have limited our advertising space to sixteen pages, which number will not be increased under any circumstance.

These changes will involve an additional annual expense of several thousand dollars, and in order to meet it the price of the journal will hereafter be five dollars per year. This last is a change which we hesitated about a long time, but it is absolutely necessary to ensure the regular publication of a professional journal, one depending for its support entirely upon the profession, and whose proprietors derive no benefit by

reason of its advertising a particular college or clique to which he may belong. We hope that no one will discontinue his subscription on this account. Wait until you see our next number, at any rate.

Editorially the journal will occupy even a wider field than heretofore, and in addition to representing all phases of medical science, will chronicle all medical and scientific news, and will be the exponent of all that pertains, in any way, to the prevention or cure of disease. It will be conducted with the independence that has characterized it in the past.

ETHICS.

In the November number of the *Medical Herald* of Louisville, the editor, Dr. Dudley S. Reynolds, indirectly accuses Dr. C. R. Agnew, of this city, of unprofessional conduct. He states that Dr. Agnew's visit to Louisville was heralded in the newspapers, where it was also announced that he might be consulted at Dr. —'s office during certain hours, and he implies that this was done with the knowledge and consent of Dr. Agnew. In reply to this, Dr. A. writes to Dr. R. as follows:

"Gladstone has said that it is a good thing for a man to keep his own account with his conscience, and I am very happy to be able to say that I had nothing whatever to do, directly or indirectly, with such press notices. When in your city, and made aware of such notices, I expressed very plainly to many with whom I came in contact my chagrin that my presence in Kentucky had elicited any public attention whatever. Kentucky hospitality is so generous, lavish and spontaneous that those who become its subjects are sometimes exposed to the peril of seeming to their critics to be self-indulgent, or even self-sufficient. I have been so long in public life that I can not always keep out of view as I should, or prevent the appearance of my name in public prints, or avoid on the one hand the censure of critics, or on the other the too flattering expressions of friends. If I am sometimes unduly flattered I may be also over-blamed, and I sincerely hope that I shall not be puffed up by the former or demolished by the latter, but grow more wise and more meek as I grow older.

"I do not think that you intend to injure me by your criticism. I give you the credit of desiring to uphold medical ethics, and know that you will not hesitate to believe that I had nothing whatever to do with the notices that have been obnoxious to you. I hope that you will, therefore, do me the justice of publishing this note in an early number of your journal that the members of our profession in Kentucky who do not know me personally but who hear of my alleged eminence and imputed blame may understand the matter, and thus relieve me of even the appearance of the public laudation which you seem to think me capable of."

If the accusation had been made by the Editor of the *Medical Herald* in the interest of professional honor, he should have published a retraction of his statements at the first opportunity after the receipt of the above letter, but instead of doing so he endeavors to maintain his accusations.

To every one who has had even a limited acquaint-

tance with Dr. Agnew, the action of Dr. Reynolds (who, by his long reputation as a specialist in the field in which Dr. A. has won renown) will appear in its true light, and he will be censured for using his pages for personal abuse, and to give vent to his petty jealousy. To those who do not know Dr. Agnew personally we would say that we know of no one who has the honor and dignity of the profession more at heart, and we have never heard of any action of his which has done aught but shed lustre upon the profession which has for years considered him one of its brightest ornaments. We hope that Dr. Reynolds, as his experience in journalism ripens, will look more searchingly and less blindly, at what may appear, to a casual observer, a breach of ethics, and will also not allow his personal feelings to sway his judgment, especially while holding the responsible position of a medical journalist. We think the violation of ethics, in this case, is on his side.

ABOUT BOOKS.

Notes of Hospital Practice. Part I. Philadelphia Hospitals. Selected and Arranged by Samuel M. Miller, M.D., 8 vo., pp. 137. Phila., S. M. Miller, M.D., 1876.

This work is divided into chapters on General Diseases, Surgical and Venereal Diseases, Medical and Surgical Diseases of Women, Nervous Diseases, and Miscellaneous. Under each division the editor has arranged a number of unique and interesting cases which have been treated in the wards of the principal Philadelphia hospitals, and he has supplemented the histories by remarks by the gentlemen having charge of the cases. The work strikes us as not being sufficiently comprehensive, but as it contains many practical points which will prove of interest to the country practitioner, for whom the editor particularly designs it, we believe that it will have a large sale. Its most valuable features are the freedom from high spun, fanciful theories, and the thoroughly practical character of its contents. We believe that no one will regret its addition to his library. The book is well printed on heavy paper, and its typographical appearance is excellent. It is the editor's intention to supplement it with a volume on New York hospital practice.

The National Dispensary, by Stillé & Maisch, 2nd Edition; Philadelphia, Henry C. Lea, 1879.

The second edition of this important work, in about six months after the first had been given to the profession is sufficient guarantee that its value has been thoroughly appreciated. On p. 204 of the present volume of the GAZETTE we called attention to the first edition. We are glad to learn that our opinion of the work at that time has been endorsed by the profession, as evidenced by the early demand for a new edition. There is no material change in the new volume.

SELECTIONS FROM JOURNALS.

THE PHYSICAL CAUSE OF INTERMITTENT FEVER.

The July number of the *Zeitschrift*, edited by Professor Klebs, contains some particulars of an investigation into the physical cause or poison to which marsh or intermittent fever is due. The inquiry was conducted by Professor Klebs, of Prague, in conjunction with Signor Tommasi, Professor of Pathological Anatomy at Rome. The two investigators spent several weeks during the spring season in the Agro Romano, which is notorious for the prevalence of this particular kind of fever. They examined minutely the lower strata of the atmosphere of the district in question, as well as its soil and stagnant waters, and in the two former they discovered a microscopic fungus, consisting of numerous movable shining spores of a longish oval shape. This fungus was found to be artificially generated in various kinds of soil. The fluid matter obtained was filtrated and repeatedly washed, and the residuum left after filtration was introduced under the skin of healthy dogs. The animals experimented on all had the fever with the regular typical course. After explaining minutely the results of their various investigations and experiments, these gentlemen are of opinion that they have discovered the real cause of the disease in question. As the fungus grows into the shape of small rods, Tommasi and Klebs have given it the name of *Bacillus malarie*.—*Med. Times and Gazette*, Oct. 18, 1879.

RELATION BETWEEN HEART DISEASE AND HYSTERIA.

M. Armaingaud (*Jour. de Méd. et de Chirurgie*, May, 1879) publishes two cases which appear to show that there is a relationship between cardiac lesion and hysteria in man, such as is already known to exist between heart disease and chorea. In one of these cases, a man, aged 28, suffered from mitral insufficiency accompanied by contraction of the aorta; he also experienced oppression, palpitations, and various phenomena indicating cerebral anæmia, with hysteric convulsions. For a month these attacks occurred two or three times a week. The treatment adopted by the author consisted in the hypodermic injection of morphia, to relieve the cerebral anæmia. The drug in doses of a centigram was at first given daily, but at a later period it was found that two injections a week were sufficient. By this means the convulsions were entirely removed, whilst the phenomena of cerebral anæmia so far disappeared as to allow the patient to resume his occupation.—*Practitioner*, Oct., 1879.

TOXIC EFFECTS OF TEA.

At the late meeting of the American Neurological Association (*Journal of Nervous and Mental Diseases*, Oct. 1879), Dr. W. J. Morton, of New York read a paper upon this subject, which, he said, was best studied by examining that class of men, such as

tea-tasters, who habitually took tea in large amounts. It was, however, not easy to obtain extensive data concerning those men, for they feared if the facts became known it might injure their business. Five cases, however, had been collected, and those, together with experiments performed by the writer upon himself, formed the basis of the paper.

The bad effects of tea-tasting were known and recognized by the tea-tasters themselves, and few could carry on the business many years without breaking down. One tea-taster estimated that he got about half-a-pound of tea into his system during a day. It has been said that the symptoms from which tea-tasters suffered were due to alcohol or dyspepsia, but the facts collected showed the contrary.

The writer gave the history of the cases referred to, and of the experiments upon himself.

The following is a *resume*: First, as to the immediate effects of moderate doses, there was in the cases observed: an elevation of pulse, increase of respiration, agreeable exhilaration of mind and body, a feeling of contentment and placidity, an increase of intellectual and physical vigor, with no noticeable reaction.

The immediate effects of an excessive dose were: rapid elevation of pulse, marked increase of respiration to the extent of about one-third, increase of temperature, no period of exhilaration, but immediate and severe headache, dimness of vision, ringing in the ears, dulness and confusion of ideas. Following that was a severe reaction: exhaustion of mind and body, tremulousness and "nervousness," and dread of impending harm, that could not be relieved by taking more tea.

The effects of continued doses were a continuance of the tremulousness, extreme susceptibility to outside impressions, constipation, diminution of urine, and marked influence on the metamorphosis of tissue as shown by the diminution in the amount of urea. Thus, in the week during which the writer was taking toxic doses of tea, the amount of urine fell from $\bar{f} \cdot \bar{3} \text{ xl}$ to $\bar{3} \text{ xxxii}$ per day; and in the same time the urea fell from gr. 591 to gr. 422 per day. The sulphates, phosphates, and chlorides were increased.

The results, as regarded the diminution of urea, agreed with previous experiments, but showed the influence of the tea much more strikingly.

From the study of the drug's action, Dr. Morton arrived at the following conclusions:

1. That with it, as with any other potent drug, there was a proper and an improper use of it.
2. That in moderation it was a mild and pleasant stimulant, followed by no harmful reaction.
3. Its continued and immoderate use led to a very serious group of symptoms, such as headache, vertigo, ringing in the ears, tremulousness, "nervousness," exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, and dyspepsia.
4. The mental symptoms were not to be attributed to dyspepsia.
5. It diminished the amount of urine, and retarded the metamorphosis of tissue.

6. Many of the symptoms of immoderate tea-drinking were such as might occur without a suspicion of the real cause.—*Med. Notes*.

NITRITE OF AMYL IN CHLORAL POISONING.

Dr. J. G. S. Coghill (*Brit. Med. Journ.*, June, 1879, p. 969) was called to see a man, aged 62, who, two hours after taking a large dose (quantity uncertain) of chloral, was gasping, with four respirations a minute, kept up by artificial respiration. The surface was cold, deeply cyanosed, with the pupils contracted to the size of a pin's head. The pulse was 80, full, soft and compressible. Twenty drops of nitrite of amyl were administered by inhalation. Within two minutes warmth had returned, even to the extremities, and the surface had resumed the hue of health. In ten minutes the respirations reached nine per minute, and gradually rose to twelve. The amyl was repeated in a smaller dose, after an interval of two hours. On the following morning, at 9.30, about twelve hours after the chloral was taken, although the patient was generally much improved, still there was no return of consciousness, but after two brandy and beef-tea enemata, he became quite sensible and spoke to those around, and swallowed food. At 6.30 P.M. the patient was improved, and continued to so till 9 P.M., when he started up suddenly from sleep, stared around, threw up his hands, and, with a cry, fell back dead. Dr. Coghill thinks a more copious stimulation, per anum, might have warded off the fatal results due to cardiac syncope.—*London Med. Record*, Oct. 15, 1879.

THE HYGIENE OF THE SCHOOL ROOM IN ITS RELATION TO SIGHT.

At a late meeting of the Société de Biologie (*Gazette Hépdomadaire*, Oct. 17, 1879) Dr. Javal, director of the Laboratory of Ophthalmology at the Sorbonne, read an interesting paper on this subject and summarized his views in the following conclusions:

1. It is proved that the causes of shortsightedness are habitually a prolonged application of sight during childhood combined with insufficient light.
2. In our climate diffused light never attains, even in the open air, to an injurious intensity.
3. The belief that bilateral light is injurious to the preservation of sight does not rest on any theoretical basis.
4. According to most recent statistics there are schools in which the light being bilateral, myopia is comparatively rare, and there exist others in which unilateral light is had under most favorable conditions, nevertheless myopia is as frequent as in the worst arranged schools. Experience is certainly not in favor of unilateral light.
5. Sufficient light by means of windows arranged on one side can only be obtained if the width of the room does not exceed the height of the lintels of the windows above the floor.
6. Light from behind, if it comes from above, may be usefully combined with lateral light; the light from a glazed roof is excellent.

7. Bilateral light should be preferred on all accounts. In this system, the width of the schoolroom being for the same height of windows twice as great as in the case of unilateral light, the intensity of the light in the middle of the room, which is the least benefited portion, is double that obtained by the same distance from windows where unilateral light is used. However, the width of the schoolroom must never exceed double the height of the windows.

8. Great importance must be attached to placing the school towards the east, and the axis should be directed from north-northeast, to south-southwest; a deviation of more than 40 degrees from the direction north-south should never be allowed except in exceptional climatic conditions.

9. The master should face the south.

10. Finally it is absolutely indispensable to reserve on every side of the schoolroom a strip of inalienable ground, of which the width should be double the height of the loftiest buildings that could be erected; allowing for the progress of civilization which has multiplied high storied buildings to an extent hitherto unknown in the country. *This last condition is the most important of all.—Med. News and Abstract.*

THE ACTION AND USE OF HYOSCYAMIA.

Mr. Engledue Prideaux, Assistant Medical Officer at the Friends' Retreat, near York, in concluding an elaborate paper on this subject (*Lancet*, Oct. 11, 1879,) presents the following as a summary of the results of the use of hyoscyamia in a considerable number of cases in his hospital, and in the cases reported by others, in regard to its advantages and disadvantages in the treatment of the various diseases of insanity.

1. That in most cases of mania, or where there exists great excitement of an aggressive and destructive character or rapidity of movement and speech, the use of the drug is the most effectual and rapid means of exercising that form of restraint which has been termed "chemical restraint."

2. That in cases of acute mania it will produce sleep and quietude when all other drugs have failed, and is one of the most rapid and reliable narcotics we possess.

3. That in the treatment of the epileptic status in epileptic mania it diminishes the number, frequency, and severity of the attacks, especially if its administration be extended over some time.

4. That in delusional insanity, especially the mania of suspicion and other forms of mania where the delusions are varying and changeable, it has a decided action in producing such an altered condition of the cerebral status that a condition which has been termed "physiological mania" results, and this so eclipses the former delusions and hallucinations that they are forgotten and the mind becomes clear: while, if the subjection to the influence of the drug be continued, it ultimately leads, under favorable circumstances to a permanent condition of quiescence and restoration to a healthy state of mind.

6. That in chronic dementia, associated with destructive tendencies, bad habits and sleeplessness,

the condition of the patient much improves after a continued course of small doses of the drug.

The disadvantages that have occurred in its use, and which have to be guarded against, are:—The dryness of the tongue and pharynx that occurs, especially after a prolonged administration. This has been thought to contra-indicate its use in cases of artificial feeding, but provided the tube be dipped into an oily liquid before passing I have not found it any inconvenience. The attacks of vomiting that have occurred in some cases after an administration of some weeks, necessarily lead to a discontinuance of the drug. Vomiting occasionally occurs after one dose, even a small one, and in two cases, mentioned by Dr. Lawson, hæmatemesis took place. Where rapid and sudden action of the drug is feared in feeble cases, it is better to administer it with the food.—*Med. News and Abstract.*

THE RAPID TREATMENT OF CLUB-FOOT.

Mr. H. A. Reeves, Surgeon to the East London Hospital for children, describes (*Med. Times and Gaz.*, Oct. 25, 1879) his method of treating club-foot, which is applicable to the large majority of congenital or acquired deformities of the feet; but the milder cases—those in which slight pressure will bring the foot into the normal position, and in which the rebound on relaxing the grasp is very slight—can, with patience, be cured without operation.

The patient being held by a nurse or assistant, and the foot being in the right position, the tendons of the tibialis posticus and flexor longus digitorum are first divided, and a pad and strip of adhesive plaster applied. Then the tendon of the tibialis anticus is divided, and a pad put on. Immediately after the tenotomies, the foot is forcibly but steadily brought into its right position, and kept there by an assistant while a flannel bandage is put on. Over this is put a plaster-of-Paris bandage, then a thin layer of plaster paste, and finally another bandage and more paste. Sometime a third plaster bandage is necessary, but in infants and children it may be dispensed with. Of course, the bandages must not be too tightly applied, and it is well to protect the bony prominences with a little cotton-wool. The foot is held in position until the plaster has set; and instructions are given to the parents to bring the child at once to be seen, or they are told how to loosen or remove the bandage should the toes become cold and purple.

If the inner part of the plantar fascia be tense and interfere with the straightening of the foot, Mr. Reeves divides it first, forcibly stretches it, and at once thereafter divide the tibials and flexor longus digitorum. He adopts this plan, which differs from that usually recommended, so that the uncut tendons may resist him, and thus enable the anterior part of the foot to be more successfully abducted. In some instances he leaves the foot in the plaster case for a week; but in the more severe cases ten days to a fortnight are necessary. At the expiration of this time the bandage is removed, and the foot will be seen to have assumed its proper position. It is then well worked (*i. e.*, abducted), afterwards the tendo Achillis is divided, and the heel

firmly but gently brought down. The pad and bandages are put on while the foot is held in the corrected position, the toes being left free, but the heel covered. Another week or ten days usually suffices by this method to bring the deformed foot into its normal position, and then the bandage is removed by cutting it in the mid-line, along the anterior aspect of the foot and leg. The foot is then well worked in the desired directions and the leg-muscles shampooed. The mother sees how this is done, so that she or her husband may occasionally do it at home, and the child is brought once a week to be seen by the surgeon.

If the child be old enough to walk, it is measured for a proper boot and support at the commencement of the treatment, and in most cases in three weeks after the first operation it is allowed to walk. The foot is well worked night and morning, and the second plaster bandage is put on at bedtime and retained in position by an ordinary roller. This is ordered to be continued for several weeks in order to prevent a relapse. Except in very severe cases an anæsthetic is unnecessary, but in private practice, should it be desired to prevent the child crying, it may be given.

Mr. Reeves has now had considerable experience in this as well as in the ordinary modes of teating club-feet, and so far has never had a relapse if the instructions have been properly carried out. He can therefore confidently commend it to surgeons interested in such matters.

The advantages of the method proposed are briefly the following: 1. The results are rapid and satisfactory. 2. Expensive apparatus is unnecessary. 3. The muscles, joints, are worked and exercised, and not allowed to atrophy or become temporarily fixed, as in the German method; and, 4. The patient, in ordinary cases, may be allowed to use the foot or to walk in three weeks after the first tenotomy.—*Med. News.*

NEWS ITEMS AND NOTES.

Dr. Lewis A. Sayre is certainly a remarkable man, and has already had a distinguished career. With study, common sense, and an impetuous energy in asserting his beliefs, he has ridden to fame upon one pathological idea and two therapeutical principles. The supremacy of traumatism over scrofula, the necessity of rest, and the importance of extension are the ideas which have controlled his surgical opinions and methods, and by the vehement utterance of which he has won his reputation. There have been, of course, certain minor things, such as reflex action and the prepuce, which have broadened as it were, his views, and ornamented with lighter touches his career. The qualities of his character are strongly marked and easily seen. He has excellent judgment, a practical rather than a studious mind, and much mechanical skill. His quick appreciation of what is valuable in therapeutical appliances, is much greater than his own inventiveness. He appropriates more than he originates (unless we except his style of expression). But he champions what is good, and generally proves to others his correctness. Dr. Sayre's reliability has

sometimes been called in question. His success is said to be too uniformly remarkable.

There is probably no doubt in the eloquence of his clinical expositions, or in the heat of his spirited objurgations, he sometimes wanders from the hackneyed limits of the actual (I hope I have put the thing mildly enough). The true story of clinical cases is often embarrassing to any clinical teacher who wishes to present a disease in all its classical and rotund completeness. And if a man receives from doting mothers three letters full of gratitude and terms of effusive endearment, he is apt to think that there have been six. Cases whose hospital record is "discharged cured," will come back sometimes with a terrible limp and pain in the hip. It is rumored, indeed, in the orthopedic wards of Bellevue Hospital, that hip-joint disease never is cured with any satisfactory result; and this expresses a considerable amount of truth.

However, inaccuracies of statement often imply only a superabundant enthusiasm and have no further moral significance. No one can deny that Dr. Sayre has done work which justly entitles him to the highest honors of the profession as well as the gratitude of his fellow men. I should not omit to mention that no one, however poor, is ever turned from his office and that the amount of private charity thus dispensed is very great indeed.—*Chicago Med. Jour.*

The Supreme Court, of Rhode Island, has recently decided that hospital corporations should be considered liable for failure to exercise reasonable care in selecting skillful, competent men as internes. This decision grows out of a case where suit for malpractice was instituted against a Rhode Island Charity Hospital by a patient whose fingers were cut off by a circular saw. Hemorrhage was excessive, and was only controlled by the use of the tourniquet, which instrument was kept on for seventeen hours. The result was, the arm was amputated at the shoulder joint, the patient affirming that careless treatment, upon the part of the interne, had induced this result. The court directed the jury to give a verdict for the defendant, on the ground that a charity institution should not be made liable for negligence or unskillful treatment. The case was taken to the Supreme Court with the above decision.—*Med. Med. Jour.*

We would state to those members of the profession, who are not already acquainted with the fact, or have not seen it, that the anatomy of the male genital organ is demonstrated every year at the College of Physicians and Surgeons of this city on a dried preparation of the penis of the renowned Capt. Kidd.—*Hospital Gazette.*

At Jefferson the same is demonstrated on a mammoth specimen—15 inches long—which Professor Gross always alludes to, affectionately, as "Professor Wallace's."—*Ohio Med. Record.*

The Hospital Gazette for 1880 will contain double the amount of reading matter that it contains at present.

Benzoate of Soda.—Professor Klebs, of Prague, announces that the benzoate of soda is the best antiseptic in all infectious diseases. It acts, as the experiments of the author show, very powerfully. It is claimed that a daily dose of from 30 to 50 grammes to a full-grown man will render the poison of diphtheria inoperative. The benzoate is prepared by dissolving crystallized benzoic acid in water, neutralizing at a slight heat with a solution of caustic soda, drying, and then allowing the solution to crystallize over sulphuric acid under a bell glass. Large doses do not appear to be absolutely necessary. Good results may be obtained by the daily administration of about 12 grammes.

Rush Medical College.—CHICAGO, ILL., Dec. 1, 1879. A concours for the lectureship on gynecology, in the spring course of lectures in this college, will be held January 6th, 1880. Applications for admission thereto received from "regular" physicians only. All who desire to compete for the position are requested to communicate with the secretary, who will assign subjects and furnish any desired information relating to the conditions of the concours. At the last spring session of lectures in this college, 148 students were enrolled. Already 113 have matriculated for attendance upon the lectures next spring.
J. H. ETHERIDGE, Secretary.

Philadelphia Academy of Surgery.—On the 21st of April last a number of the prominent surgeons of this city met at the house of Prof. S. D. Gross to consider the propriety of founding a surgical society. The meeting was organized by the appointment of Dr. A. Hewson as chairman, and Dr. J. Ewing Mears as Secretary. At a subsequent meeting it was determined to name the Society the Philadelphia Academy of Surgery, and a constitution and by-laws were adopted. The first annual election of officers will be held in January, until which time the temporary organization was continued.

By the constitution the resident fellowship was limited to thirty; the honorary American to fifteen, and honorary foreign to ten. The meetings of the Academy will be held on the first Monday of every month. The first stated meeting was held in October, and valuable papers were read by Drs. S. D. Gross, S. W. Gross and T. G. Morton, which elicited interesting discussions.

Contagious Animal Diseases.—The U. S. Veterinary Medical Association have petitioned Congress as follows:—

Whereas, It has been shown that the different animal plagues prevail to a disastrous extent among the live stock of the United States, and that many millions of dollars are annually lost to the nation for this cause:—

Whereas, Several of the most redoubtable of these plagues are now restricted to circumscribed localities, but threaten to speedily extend over wide areas, where from the mingling of herds on unfenced ranges, like the plains, they must become permanently domiciled, at an immense yearly loss that will steadily increase with the constant advance of agriculture, and the increase of our live stock:—

Whereas, The unfenced stock ranges of the West

and South are at the source of the traffic in live stock, and their infection must determine the infection of all the channels of the traffic, (cars, boats, yards, etc., etc.) and of the Middle and Eastern States:—

Whereas, Several of these animal plagues have already led, different American and European countries, to place embargos on our live stock, which will be maintained so long as these pestilences are allowed to exist in our midst:—

Whereas, The extinction of these animal contagia, is of incomparable more importance to the Western stock-raising States, than to the Eastern, even though they may be at present exclusively confined to the latter:—

Whereas, It is not probable that all of the infected states will of themselves go to the trouble and expense of stamping out these pests in which they have so much less pecuniary interest than other states which are as yet unaffected:

Whereas, Certain of the most destructive of these pestilences are exotics to the stock-exporting states, and can be effectually and permanently eradicated from them:

Whereas, A large number of animal diseases are due to contagia or to parasites that are communicable to man with equally disastrous results:

Whereas, There is constant danger of the importation of the same and of other exotic animal plagues unless a proper inspection and quarantine of imports shall be inaugurated: And

Whereas, The restriction and extinction of these diseases can be best accomplished under the direction of the Veterinary Profession, who alone have made a special study of these epizootics, and are acquainted with the laws of their propagation and development:

Resolved, That we, the undersigned, members of a committee appointed by the United States Veterinary Medical Association for that purpose, do hereby respectfully petition, that the Honorable, The Congress of the United States, shall establish a Veterinary Sanitary Bureau, whose duty it shall be to advise Congress as to what measures shall be necessary to control, restrict, or eradicate any contagious or infectious disease affecting the domestic animals: And

Resolved, That in view of the urgent necessity for the eradication of the Lung Plague of Cattle from the United States, the restriction of the Texas fever of cattle to those Southern States in which it is already domiciled, and the protection of our flocks and herds against pestilences that may be imported with foreign stock, Congress is further respectfully requested to appropriate a sufficient sum of money to enable the Veterinary Sanitary Organization to deal at once, and effectually, with these three important matters.

A. LIAUTARD, M.D., V.S.
J. LAW, F.R.C.V.S.
J. L. ROBERTSON, M.D., V.S.
E. F. THAYER, M.D., V.S.
N. H. PAAREN, M.D., V.S.
A. LOCKHART, M.R.C.V.S.
C. P. LYMAN, V.S.
C. B. MICHENER, D.V.S.
A. A. HOLCOMBE, D.V.S.

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LECTURES.

VESICO-UTERO-CERVICAL FISTULA
ATTENDED WITH CONSIDER-
ABLE LOSS OF TISSUE—OBLITERA-
TION.A Clinical Lecture delivered at the Woman's Hospital,
Philadelphia, on the 21st of New York.

NATHAN BOZEMAN, M.D.,

Attending Surgeon.

Reported for the Medical Gazette and Revised by
the Lecturer.)

GENTLEMEN: The case upon which I propose to operate to-day is usually called vesico-uterine fistula, but, to make it conform to the classification of the injuries in general of the cervix uteri, I propose to call it vesico-utero-cervical fistula. This lesion is of rather rare occurrence. It is only within the last half a century that it has been recognized and described by writers. Prominent among those who have written upon the subject are, Madame Lachapelle, Stoltze and Jobert (De Lamballe). Jobert was the first to propose treatment by bloody procedures, which he did in 1849.

The lesion manifests itself usually in two forms: first, as the result of laceration of the anterior wall of the cervix uteri, involving the vagina and bladder without loss of tissue; and second, as the result of contusion and gangrene of the anterior wall of the cervix uteri attended with loss of tissue, as in the case before us. I have said that Jobert (de Lamballe) was the first to propose treatment by bloody operations. He suggested two procedures:

First procedure—This consisted in splitting the cervix uteri bilaterally up to a point above the attachment of the vagina, and then widely separating the two halves like the lids of a book. He next pared the edges of the fistula situated in the anterior half and united them with sutures in the usual way. After this, the two lips of the cervix were brought together again, and also united by sutures, the object being to preserve the menstrual and generative functions.

Second procedure—This consisted simply in refreshing and uniting the two lips of the cervix uteri, thus leaving the lesion untouched. The result of this was to turn the menstrual fluid through the bladder and to destroy the generative function. The first method Jobert employed in his first case, but it proved a partial failure. He afterwards completed the cure by cauterization, which required about three months. The second method he adopted later, which is hysterocleisis, as it is now commonly called. This method has been employed by almost every surgeon who has had any experience in gynecology since that time, and when employed it always means turning the catamenia into the bladder and destroying the procreative faculty. I myself performed it once many years ago, before I learned how to avoid it, in the case of a woman who had passed the menopause. I may state that in 1856 I adopted a third method of treating this lesion, involving as well the neighboring vesico-vaginal septum, which differed very essentially from both of Jobert's. My object, as in his first method, was to preserve the menstrual and generative functions. It was intended alone for that form of the lesion described as resulting from simple ulceration without loss of tissue. The lesion in this case was the result of a failure in a previous operation to close a laceration of the anterior lip of the cervix uteri involving the vagina and bladder under the form of a vesico-utero-vaginal fistula.

The operation consisted in, first, dividing the cervix uteri down from the existing sinus to the vesico-vaginal septum and into the bladder, thus reproducing the original condition of the parts. This being done I pared off the sides of the sinus, and then reclosed the whole with sutures passed transversely through both the cervix uteri and the vesico-vaginal septum. The operation was entirely successful, and the functions of all the organs were preserved. Since that time I have operated upon six or seven cases of simple vesico-utero-cervical fistula, or this, complicated with vesico-utero-vaginal fistula in the same way and with a similar result.

The case upon which I propose to operate to-day presents simply a vesico-utero-cervical fistula, attended with considerable loss of tissue. The opening is almost large enough to admit the point of the index finger and commences just above the attachment of the vagina and a little to the left of the mesial line. The urine passes directly from the bladder into the cervical canal, and thence through the os into the vagina. There is no evidence of the opening in the cervical canal as viewed from the vagina further than the escape of the urine from it as described.

The method of operating that I have devised for the case differs from both of Jobert's methods as well as my own, just described. It constitutes, I conceive, an important addition to our *répertoire* of procedures. It has never before been carried out by any one that I am aware of. At all events I have seen no description of it in any of the writings that I have examined. It is divided into two stages: first, the splitting of the cervix up to the vaginal attachment and then cutting loose the anterior lip of the same upon either side down to a level with the vesico-vaginal septum. Next follows kolpocetasis. This stage of the procedure was commenced some four or five weeks ago. The dilatation of the vagina and the healing of the incisions are now complete, and the fistulous communication after cervical dilatation may be said to be in full view, the object sought to be attained; and second, the closure of the fistula which I now proceed to execute.

First stage.—This consisted in the complete excision of the anterior lip of the cervix uteri with a part of the vesico-vaginal septum, thus converting the original lesion into what is called a vesico-utero-vaginal fistula.

This being done, the posterior lip of the opening which was the stump of the cervix uteri was next pared off, as is generally done in fistulae of the latter class.

(Four silver wire sutures were needed, which were introduced by a straight needle set in a curved needle holder. This being done, the sutures were next adjusted in the usual manner, and a button or plate of best of suitable form and size was slid down upon them, and the whole then secured in place by the compression upon each wire of a perforated shot. The great utility claimed for this form of suture in the operation centers in the leaden plate which stands across the cervical canal and prevents its recontraction and the consequent puckering of the line of coaptated edges until union takes place. After washing out the bladder the patient was placed in bed, and sulph. quinae gr. x and liq. opii comp. ʒj were ordered per rectum to be followed by one grain of opium by the mouth every six hours.)

In the operation great advantage was displayed in the use of the self-sustaining and dilating speculum. With it the vagina was expanded to the fullest extent, and the greatest facility was thus afforded to the movement of instruments. The advantages of

the knee-chest position were also well illustrated, the patient, resting upon a supporting apparatus, took the anesthetic for more than an hour and a half, seemingly with the greatest ease and comfort. Formerly, when patients had to support themselves in the knee-elbow position, anesthetics could not be administered. And such operations as this, if done at all, had to be performed under difficulties in comparable with those here encountered.

ON POSTERIOR SPINAL SCLEROSIS.

A Clinical Lecture delivered at the Philadelphia
Hospital.

CHARLES K. MILLS, M.D.,

Neurologist to the Hospital, Lecturer on Electro-
Therapeutics in the Univ. of Pa., &c.(Reported for the Medical Gazette and Revised by
the Lecturer.)

The patient, A. D., is a man 32 years old. He has always led a life of more or less exposure, in his youth working in a tannery; from the age of twenty to twenty-four years following the sea, and still later being a miner. From three to four years ago, while still employed in the mines, he occasionally had shooting pains in the legs. They first attacked the left leg, and three months later the right. They did not confine themselves to one spot, but sometimes affected the calf, sometimes the hip or thigh, sometimes a joint. He began to lose power in, or control of his legs, the left failing first, and he also had some numbness in both feet. About the same time his sight failed a little, and he became unsteady in walking since.

All his symptoms two years ago suddenly became much worse, but he managed to get to Philadelphia, and was admitted to the Hospital. He was obliged to go to bed immediately. He tells me that he suffered terribly; he had severe pain in the small of his back, and now and then violent paroxysms of pain in the stomach; cramps frequently attacked his thighs and calves; spontaneous twitching and jerking of the legs occurred; the most trifling causes, such as the touch of the bedclothes or a current of air, would bring on these movements; he could not lift his leg three inches from the bed; his bowels and bladder were both paralysed, and he had the sensation of a cord or band around his waist. Under treatment he improved, but the amendment was slow. Gradually, however, his attacks of pain lessened; the cramps and exaggerated reflex movements subsided; he gained some control of bowels and bladder; and, finally, after some eight months of complete helplessness, he was able to hobble around on crutches.

Such is the early history of this case so far as it can be ascertained; doubtless it is in many respects imperfect. It is likely that the trouble in this man's spinal cord began nearly four years ago, when he first complained of the occasional lancinating pains in the lower extremities. An acute myelitis, or conjoint meningitis and myelitis superinduced by exposure or want of care, was probably imposed upon an incipient chronic sclerosis. The acute malady subsiding under treatment and time, he has been left with all the symptoms of the chronic disorder in an exaggerated form. Since leaving his bed, however, some of his troubles, particularly those indicating active sensory and reflex disturbance, have improved; others have grown worse. He has less pain, but more anæsthesia; less twitching and jerking of the limbs, but marked loss of response to tests

to relax avary. His disturbances of sight have gradually increased.

Seven years ago it might be well here to note, he had a chore, and since has had a number of other secondary symptoms. He is subject to fits of cerebral pleasure, and to a morbidly excessive.

We will next study together his present condition. He has been brought into the clinic room in a rolling chair, as he is unable to walk except with crutches. With his eyes firmly fixed on the floor, he can barely manage to stand for about one minute. His legs tremble and he would fall if he did not sit down. As I hold an object before him he looks at it vigorously, but with an abrupt jerky movement, frequently missing the mark, the line of motion described by his foot and leg being quite irregular. I am able to illustrate his ataxia in this way. In other cases, which still retain the power of standing and walking, you have the well-known ataxic gait, as in the two patients that I will now have to pass around the arena.

The man has even a sort of ataxic disturbance of speech, which shows itself by a peculiar form of stuttering. You notice also a tremor, when he attempts to speak, in the muscles around the mouth and in the tongue.

In answer to my questions he says that he still suffers at times with lancinating pains, which are most apt to come on during bad weather. During the past year he has had two violent attacks of pain in the region of the stomach, and he often has shoots of pain in the left side.

Testing him with the aesthesiometer, you see that anaesthesia is almost absolute in his feet; it is marked in his legs, but decreases as we ascend the limbs; it is also quite readily demonstrated in the hands and forearms. Examining also the condition of the sensibility by means of a faradic current, using both metallic and moistened rheophores, you have further evidence of anaesthesia, both cutaneous and muscular. In passing, it might also be observed that when I apply a moderately strong current to the muscles they contract well under the electric stimulus, not, however, I think, quite as well as in health, for all parts of the limbs.

He complains that he cannot tell where his feet are when he is not looking at them. He no longer has the sensation of a cord or band around his body, but says that he feels nearly all the time as if his belly was being gathered together and drawn upwards.

He has another curious disturbance of sensibility which is sometimes not present, but is oftener overlooked. With my watch in hand, I again prick his foot with one of the sharp points, and I discover that he does not have a perception of pain until two seconds have elapsed. I repeat this experiment several times on both feet, and always with about the same result. It requires half a second to recognize a similar impression made upon the hand. This phenomenon is known as the retardation of the conduction of sensation. It is often quite marked in typical cases of posterior sclerosis, and is usually most noticeable in regard to the sensations of pain. In this case, however, the conduction of touch and temperature are also both retarded. Applying a sponge dipped in hot water, and also using ice to his feet, I find that it takes from two to three seconds for him to appreciate the sensation of either heat or cold when the dorsal surfaces are touched, and from three to four seconds when the applications are made to the soles.

Phenomena well worthy of study are furnished by this valuable patient in the domain of the special senses as well as in that of

the Hospital, has carefully examined his eyes, and from him I have received the following report: After the use of atropia his pupils dilate well, but irregularly, the outline of the pupils being oval with somewhat uneven margins. This contour is more marked in the right eye than in the left. Neither iris shows any adhesions. The mediae are clear. In the right eye the outline of the nerve is sharp and regular, and its color is a bluish gray. At the centre of the nerve is a physiological depression, deep and wide, at the bottom of which are the laminae cribrosae. The arteries are contracted, but straight; the veins are about normal in size. The scleral ring is somewhat marked at the outer side, where is also a crescent of roughened choroidal pigment. The fundus is otherwise healthy; the refraction is normal; the outline of this eye is round; that of the left is oval, with its long axis vertical; the outline of the left optic nerve is sharp; its color is of a bluish-gray; the vessels are in about the same condition as in the other eye. In brief, you have here a case of well-marked blue atrophy of both optic nerves. His field of vision shows marked concentric diminution in the left eye, and the same limitation—but not nearly to the same extent—in the right; he is color-blind for green, having lost entirely the perception of this color; his field for red is strikingly diminished, and that for blue is also narrowed, but not so much. Dr. Shakespeare and I have carefully determined his fields, both for form and color, and diagrams showing these I will pass around the class.

The atrophy of the optic nerve, and the diminution of vision and color-blindness, are phenomena which go together in the study of this case. The latter are probably dependent upon the amount of atrophy; although color-blindness, as shown by Delboeuf and others, is not always due to wasting of the elements for perceiving different colors. Why the optic nerve should be attacked so early in cases of posterior sclerosis, it is difficult to say; but a process of degeneration similar to that which takes place in the cord, seems to begin at the periphery of the nerve and advance inwards, coincident with, or, possibly, anterior to the assaults upon the spinal columns. Hearing is slightly defective in both ears; taste and smell are normal. As reflex disturbances, the result of organic disease of the spinal cord, have of late been attracting much attention, let us next examine into these phenomena. This man, during the greater portion of the eight months that he was confined to bed, had symptoms which indicated marked exaggeration of reflex excitability. Slight irritation, merely touching the skin, for instance, caused twitchings and jerkings of his limbs; and sometimes violent movements would occur apparently without cause. Probably these manifestations were due to the acute congestive or inflammatory condition of the cord, from which I have supposed the patient was, at this time, suffering. Both gray horns and white columns were most likely implicated in this acute attack, and it is well established that augmented excitability of the spinal gray matter will produce exaggerated reflex actions. Besides springing from irritative states of the spinal cord, these may also result from a separation of the brain from the reflex apparatus of the cord, such as occurs in transverse myelitis, spinal tumors and the like. Experiments in the laboratory and experiments of disease, have time and again shown that the brain exerts a powerful inhibitory or restraining influence over lower centres, and this restraint being removed by disease or injury, the reflex centres of the cord are left to follow their own will, or, rather, want of will. Here, for instance, is a case of a

focal, transverse myelitis. The symptom indicate a profound but circumscribed destruction of the cord. The patient is certainly not, at present, suffering from acute myelitis. He has for months been able to sit up and go about the ward in his rolling-chair. The slightest tap upon the ligament of the patella causes a sudden and violent extension of the foot and leg; several taps, repeated one after the other, set up a continuous backward and forward vibratory movement of the limb. What is called ankle or foot clonus is also well developed, better than in any other case at present under my charge, or, indeed, than in any which I have ever seen. Abruptly bending the foot upwards, by placing the hand under the fore-part of the sole, a tremor is observed in the foot and leg, and when the pressure is removed the motion increases and continues, the foot and leg being tossed about in an irregular, convulsive manner for a minute or two; you have a form of the spinal epilepsy of Brown-Séquard. The phenomenon so beautifully shown by this case is, I think, due to the cutting off of the cerebral inhibitory action from the intact gray matter below the seat of lesion.

Returning, however, to our case, you will find a very different state of affairs from that which I have just been discussing and illustrating. Striking the ligamentum patellae blow after blow, and rapidly bringing the foot into dorsal flexion, I can get no response whatever. The tendon reflexes are abolished. This is the condition usually found in advanced cases of sclerosis of the posterior columns. It would appear, however, not to be invariably present; but the cases in which it is absent, have shown, in my experience, other characteristics which serve to separate them to some extent from the ordinary examples of locomotor ataxia. I will have brought in at this point another patient to illustrate the facts to which I am alluding. This man is about thirty years of age, and is an extreme instance of ataxia both of the legs and arms; his movements exhibit even more want of co-ordination than those of the subject of my lecture, marked anaesthesia and analgesia are present; and his eyes show the conditions so often found in posterior sclerosis, and of which I have treated, namely, optic atrophy, marked diminution in the sharpness of vision, and great limitation of the fields both for form and color. The patellar reflex can be readily elicited in this case; it even seems to be slightly exaggerated in the right leg. Note also that the lancinating pains have been from the first entirely wanting. Charcot holds that these well-known pains are only present when the external bands of the posterior columns are affected by the sclerosis, and it may be that the tendon-reflex is only completely abolished when this same region is largely implicated.

The right knee-joint of this patient seems to be somewhat looser, more mobile, than it should be; the man has never, however, suffered from any acute articular symptoms, and has had no luxations or sub-luxations such as sometimes occur in the course of locomotor-ataxia.

He is much troubled with his water. He often has considerable difficulty in micturition; the urine nearly always flows from him very slowly, sometimes stopping suddenly and then beginning again; sometimes only passing drop by drop. He never has a natural and easy evacuation of the bladder, and he suffers occasionally from partial retention, requiring the use of the catheter. He has several times had symptoms of incipient cystitis, of which he has been relieved by prompt treatment. His sexual powers appear to be

retained, but his inclinations in this direction are not as strong as they were once, if we can rely on his own statements.

I will not stop to make any lengthy general remarks upon the disease of which this patient furnishes so excellent an illustration. With our present ideas of the symptomatology and pathology of diseases of the spinal cord, the diagnosis of sclerosis of the posterior columns must, of course, be given. The case is almost typical, corresponding more closely to the picture of the affection given in the books than many of the cases you will meet with in your practice. It is of cardinal importance for the student and young physician to remember that the cases of systematic sclerosis that come to them for diagnosis and treatment cannot always be forced into the exact mould of the text-books. While the lesions may chiefly attack certain columns—posterior, anterior, or lateral—the pathological not infrequently extend irregularly to adjacent regions, giving rise to transition forms and a complicated symptomatology.

One interesting symptom from which this patient has at times suffered is not uniformly present. I refer to the gastric crises—the severe paroxysms of pain in the region of the stomach.

The ataxic disturbance of speech manifested by this man has been particularly studied by Friedrich, who, I think, has established the fact, denied by some, that it is a true ataxic disorder. Often facial and oral movements cannot be properly co-ordinated when muscular power undoubtedly remains.

In regard to the retardation of the transmission of sensation, when the practically instantaneous character of normal sensory conduction is remembered, the facts brought out in the examination of this patient are quite remarkable. Those of you familiar with this subject may, however, call to mind some wonderful cases in which even minutes have elapsed between the application of a stimulus and the appreciation of the sensation which it evokes.

As the patient had worshipped at the shrines both of Bacchus and Venus, as he had syphilis, and had led a life of exposure you can have your choice out of four of the causes often assigned for locomotor ataxia. The prognosis, it is unnecessary perhaps to say, is not good. Nearly all the usual methods of treatment have at different times been resorted to in the case, and to these, in conclusion, I will now refer.

If you have a clear history of syphilis, or if you have evidences of some conjoint meningitis, the iodide of potassium in large doses, and the mercurial preparations will be found of value. I have several times used mercurial inunction with apparent benefit. Generally, however, I employ the old combination of corrosive sublimate with the iodide of potassium. Once in a very long while a brilliant result will be achieved.

Early in the disease and in stages of excitement, ergot and the bromides are of undoubted value. I have recently been resorting to ergot hypodermically, using an excellent concentrated fluid extract, each minim of which contains two grains, prepared by Mr. Davidson at the establishment of Benjamin Ripperger, of 911 Walnut St., Philadelphia. Superficial cauterization, repeated twice or three times a week at different points along the spine sometimes seem to do good, but they are not as efficacious here as in some other spinal disorders.

On the whole, taking the cases at the stage at which they usually present themselves for treatment at hospitals and dispensaries, I have had the most success from the use of the galvanic current and the salts of silver, con-

joined with as much rest as it is possible to enforce. In making use of galvanism large sponge rheophores are applied in such a way as to include the entire portion of the cord supposed to be diseased, and as strong a current as the patient can bear is applied from five to ten minutes daily, or every other day. In general, I use by preference an ascending current, although experience has not furnished me with any very certain data in regard to the direction of current. The treatment should be continued for months; and great attention should be paid at the same time to the patient's general condition, cautioning him against over-fatigue and abuses, insisting upon as much rest as possible, and ordering nourishing food and cod liver oil to keep up nutrition. Even if cures are not effected, you will sometimes obtain astonishing improvement from the treatment. Remak, Meyer and others claim to have accomplished cures by electrical treatment.

The nitrate of silver continues to hold its place as the first of medicinal remedies in the treatment of tabes. I usually give it in doses of from one-sixth to one-half a grain three times a day, its use being discontinued after three or four weeks for fear of argyria, and renewed again later. I commonly prescribe it in pill form with some vegetable bitter, as the extract of gentian. It can sometimes be advantageously combined with opium in small amounts. The oxide of silver may be substituted for the nitrate.

Hydropathic treatment, strongly recommended by some German authorities is worthy of trial. Sulphur baths are highly lauded by some.

The Prussian oil of phosphorus often acts well when it is necessary for a time to stop the use of the silver salts.

Symptoms are to be met. The pains are best relieved by hypodermic injections of morphia, and the application of galvanism to the spinal column and spinal nerves.

Irritability of the bladder can be treated by a prescription containing bicarbonate of sodium, sweet spirits of nitre, and tincture of belladonna. Salicylic and benzoic acids have both been recommended for vesical catarrhs. Faradization is most useful for the anæsthesia and paresis.

Under the influence of special exciting causes, such as fatigue, exposure, alcoholic or other excesses, and sometimes without any apparent reason, patients suffering from sclerosis of the posterior columns, or, indeed, from any form of spinal, cerebral, or cerebro-spinal sclerosis, are liable to peculiar attacks such as that from which our patient suffered, in which all their symptoms become suddenly worse. Pains of frightful severity—in cases of posterior sclerosis—shoot through their limbs; anæsthesia and incoördination are greatly increased; some of the joints may show signs of acute inflammatory trouble—in short, all the old symptoms are exaggerated and new ones, such as hyperæsthesia and augmented reflex are sometimes added. These exacerbations are probably due to acute congestive states, which arise in a cord constantly irritated by a chronic sclerotic process; sometimes they subside of themselves, but they should be promptly combatted, as, if not treated, they may lead to an acute general myelitis. The patients should be put to bed and complete rest and quietude enjoined; dry cups should be applied to the spine, and if these are not quickly efficacious, wet cups should be used; at the same time ergot and bromide of potassium should be given.

ORIGINAL ARTICLES.

POSTURE IN THE TREATMENT OF INTESTINAL COLIC AND ILEUS, WITH A CONSIDERATION OF THE PATHOLOGY OF "SPASMODIC COLIC."

BEING THE FIFTEENTH LECTURE TO A PAPER READ BEFORE THE NEW YORK ACADEMY OF MEDICINE, MAY 1, 1879.

FRANK H. HAMILTON, M. D.

May 1, 1879, I read before the New York Academy of Medicine a paper on Posture as a Means of Treatment in Strangulated and Incarcerated Hernia, (subsequently published in THE HOSPITAL GAZETTE for June 9th, 1879); and which paper "was written as prefatory to the consideration of Spasmodic Colic and Ileus," for the purpose of calling attention to posture as a means of treatment in certain examples of these latter affections.

No opportunity, of which I could conveniently avail myself, has yet been afforded me to complete the reading of the paper before the Academy, and I have therefore thought it best to publish it, in order that those who read the first fasciculus, relating only to posture in hernia, might understand in what manner the facts there stated and the views there expressed might bear upon the treatment of colic and ileus.

Writers have spoken of several varieties of intestinal colic, such as simple spasmodic colic, bilious colic, colic from obstruction, neuralgic colic, inflammatory, rheumatic colic, lead colic, etc. These various forms of colic they have attributed to various causes, among which, as a *direct* cause, "spasm," with or without contiguous paralysis, is made to occupy the most prominent position, and especially in the variety first mentioned.

The precise meaning which these writers attach to the word spasm, in its relation to colic, is not always clearly stated; and often they speak of it only casually, or rather as a suggestion, about which they may entertain some doubt, although they do not actually express a doubt.

Thus Dr. Austin Flint, in his Treatise on the Practice of Medicine, says the pain is of a character "supposed to indicate spasm." It might seem from this mode of stating the cause that the author saw some difficulties in the way of this theory, and that he did not regard it as proven; but when considering the subject of treatment, he assumes a more positive tone, and declares that the "object of treatment is to relieve spasm as indicated by the cessation of pain. Measures are to be directed to this object without reference to the cause of the attack, or the existence of constipation." We suppose Dr. Flint, to refer in this latter clause to the exciting causes, such as acrid ingesta, etc., the immediate cause being the spasm.

Wood, while offering no explanation of the precise nature and degree of spasm which may cause intestinal obstruction and colic, says of those rare cases which terminate fatally. "Death probably results from the spasmodic closure of the bowel, operating as an obstacle to the passage of the intestinal contents. It is probable that the great distention of the bowel, above the contracted portion, may in some measure paralyze the muscular coat, and thus act as an additional cause of constipation.

This language permits us to infer, I think, not only that spasm may in his opinion, so completely close the intestinal tube as to cause death by complete obstruction, but that

in any way, that is by spasm resulting in complete occlusion, what he terms "simple, complete spasm," not ending in death, may be fatal. If he had what else can be meant by a spasm, giving rise to obstinate constipation, as caused by a spasm, except that the circular fibres of the intestinal tube contract upon themselves until no orifice remains through which air can pass from one portion of the gut to the other? If, however, writers have generally used the term spasm as meaning only a moderate constriction at certain parts of the intestinal tube, or as only an increased peristaltic action, it is not clear how either of these conditions could cause obstinate constipation or lock up the gas and other contents in circumscribed portions of the canal. Certainly it would have been better if they had given some clearer idea of what they mean when they speak of spasm as causing colic; and if we have misunderstood them it is because their language is indistinct, and we are left to an inferential construction. We infer that they mean complete spasmodic occlusion because they do not say to the contrary, and nothing short of this could produce the results frequently observed in this class of cases. In fact I am now reminded that Wood speaks even more positively of the relations of the constipation to the spasm, when he says of simple spasmodic colic "constipation is the result and not the cause of the spasm," p. 651. We are therefore not left in doubt as to his opinion at least.

Gross speaks of intestinal obstruction due to spasm. Says Erichsen, speaking of intestinal obstruction, "It is of much importance to bear in mind that severe and even fatal intestinal obstruction may occur simply from spasmodic colic." In Ziemssen's Cyclopaedia of Practical Medicine, "spasm of the bowel" and paresis of contiguous portions, are mentioned as giving rise sometimes to the phenomena of colic, but no allusion is made to the degree of spasm which may occur, nor to spasm as causing complete occlusion of the intestinal canal. But, speaking of "ileus spasmodicus, which term I understand to mean, essentially, the same thing as 'colica spasmodica,'" and to embrace the same pathologico-anatomical conditions," Leichtenstern says, "The idea of an ileus spasmodicus, like an icterus spasmodicus lasted longest, even to the middle of the present century. To-day the question of the existence of such an affection no longer calls for serious discussion."

This statement of Leichtenstern seems to me to imply that among the advanced medical scholars of the last half century, the idea that spasm can completely occlude the intestinal canal so as to obstruct the passage of gas, and in some cases to cause death (in which cases of persistent and fatal spasm, alone, would it be termed ileus perhaps), is abandoned. But my knowledge of the literature of this subject is too limited to allow me to say that this is the real conclusion of our best pathologists and medical scholars. But if this idea of ileus spasmodicus is abandoned, it saves me much labor, or at least renders it more easy to secure attention to my own, and what I suppose to be novel, views, as to the immediate cause of the phenomena in many cases of so-called spasmodic colic and spasmodic ileus. Certainly if spasm is to be rejected as being an insufficient explanation, we must now find some other which is sufficient, and I am not aware that this has been done.

It must be understood that I am not seeking for the remote causes. These have been studied with diligence, so far at least as re-

lates to some of the forms of colic, including all the forms of purely neuralgic colic, lead colic, &c., by Romberg, Knosmand. Main and others, who have traced the remote causes to certain changes in the sympathetic ganglia, or to certain influences operating mainly upon the sympathetic system; or, in the case of acrid and irritating ingesta, the causes of spasmodic colic have been ascribed to reflex actions, inducing pain, partial spasm and partial paralysis, increased and diminished peristaltic action in different portions of the intestinal tube.

What we are now inquiring about is, how to explain the sudden complete obstruction of the intestinal tube in certain cases of colic accompanied with acute pain; and its equally sudden relief, followed soon by a recurrence of the same phenomena; when these phenomena are evidently not due to impacted feces or to other palpable causes, and which phenomena have usually been designated as spasmodic colic. We are searching for the immediate cause of the obstruction, in these cases.

Let me I should have misunderstood the views of Leichtenstern, and let the opinion may not have been abandoned that it is due to spasm alone, permit me to give my own reasons briefly for supposing that it is not so caused.

I cannot think that spasmodic occlusion of any portion of the intestinal tube is possible, except at its two extremities, the pylorus and anus, and possibly at the ileo-caecal valve, and at the junction of the ileum with the rectum.

The circular unstriped muscular fibres are nowhere else sufficiently aggregated to render it probable that they could do anything more than to cause a very slight narrowing of the canal; and they nowhere encircle the intestine entirely with continuous filaments. Their function is, in connection with the longitudinal fibres, to cause a slight peristaltic action, under the influence of which long-continued, or frequently-repeated, the contents are gradually moved forwards, or in some cases backwards (antiperistalsis). They have never been employed like the sphincter ani, or the constrictor vesicae, to obliterate the channel; they were not needed for such a purpose, and there is therefore no anatomical provision for its possible recurrence.

Nor does any one pretend, so far as I know, ever to have seen such an occurrence, either before or after death. Yet opportunities have not been wanting before death in cases in which portions of the intestines have been exposed to view during the progress of surgical operations, or in consequence of surgical accidents which have removed large portions of the abdominal walls; and in these latter cases the conditions are the most favorable possible for the production of spasm, namely, the presence of nervous shock consequent upon the injury, and the exposure to air and other irritants. After death, in man and other animals, the peristaltic action is often, for a time, greatly increased, yet no one has observed the phenomenon in question, and which Dr. Wood supposed to exist when death was caused by spasmodic colic.

Intestinal strictures have been found, but no one has pretended to have seen a spasmodic stricture of the intestine either before or after death.

In a few experiments which I have made upon the intestines of animals just killed, no spasmodic occlusion has been obtained under the influence of irritants, which was sufficient to prevent the passage of gas.

The explanation of the phenomenon in question which I offer is, that in consequence of an unusual accumulation of gas in the intestinal tube certain portions are expanded

and elongated, until, under the counter pressure of the abdominal parietes, insufficient room is left for their normal repose and relative adjustment, and they become at certain points doubled upon themselves and possibly upon each other, and the sharp angular reflexions interrupt or actually occlude the passage.

The great length of the mesentery permits in a healthy state of the bowels a great latitude of motion to the small intestines; and in consequence of the peristaltic action, and of changes in the form, volume and position of the abdominal cavity, these changes and actual transpositions or dislocations of the small intestines are constantly occurring; but when inflated with gas, and especially if at the same time the peristaltic action is increased by acrid ingesta, so that the natural movements of the intestinal tube are greatly exaggerated, their ready adjustment to each other is rendered difficult, and a doubling upon themselves, and sometimes, perhaps upon each other, or even a slight twisting, would seem to be rendered probable, if not inevitable.

It is not improbable that this doubling of the intestinal tube is rendered more likely to happen on account of a certain amount of narrowing of the tube from spasm, and its actual dilatation in the portion of intestine immediately above; or that the presence of a small amount of hardened feces may favor the doubling.

One ground, and possibly the chief ground for the supposition so generally entertained heretofore, that intestinal colic is in most cases due to spasm, causing an occlusion of the channel, has probably been that, if it did actually exist to the extent of causing complete occlusion, it would satisfactorily explain the symptoms usually present. In reply to this very specious argument, it might be sufficient to show that the supposition was impossible; but, admitting its possibility, the theory which I have offered explains these phenomena equally well, and perhaps better than the theory of occlusion from spasm.

1st. *As to the obstruction.* The doubling, slight twisting, or entanglement of the intestinal tube is equally competent to cause an obstruction at some point as a spasm.

2d. *The pain.* The pain is probably occasioned by the pressure of gas and other contents against the distended gut; and possibly it is increased in some cases by exalted sensibility at the seat of obstruction. Indeed, the pain must always be less or greater in proportion to the healthy or morbid sensibility of the parts involved.

3d. *The paroxysmal character of the pain.* Under the theory which I have adopted, finds a ready explanation in the peristaltic action of the intestinal tube. In a normal condition peristalsis is known to be alternating, or paroxysmal, with intervals of complete rest. Under the excitement caused by irritating ingesta, the peristaltic action is still paroxysmal, but more urgent or violent, and is, in itself, probably the direct source of those pains which, in an ordinary attack of colic, come and go at somewhat irregular intervals.

Whatever other symptoms may be present in intestinal colic, are as readily explained by the theory of doubling, twisting or entanglement as by the theory of spasm.

4. *Explanations drawn from therapeutics.*—Dr. Flint says "the morbid condition in colic is supposed to be spasm. Its seat is therefore the muscular tissue of the small or large intestines. That this is the pathological character of the affection, is shown by the kind of pain, the constipation, together with the other local symptoms, and the therapeutic measures which are found to be suc-

the importance of subduing the spasm, especially by the use of opiates—since "so long as the spasm continues, there is a resistance to the action of cathartics."

I do not think, admitting that Dr. Flint's therapeutics are correct, that the inference which he makes, namely, that the opium and other similar remedies which are successfully employed by him, prove that the true pathology of the affection is a spasm, is logical; or to say the least, I do not think this conclusion is inevitable. Since it may be that the opium merely allays the acute pains by diminishing the nervous sensibility, or arresting or diminishing the peristaltic paroxysms, and permitting the patient to have a few hours of rest, until the intestines have time and a better opportunity to gradually unfold and adjust themselves.

But opium and narcotics do not always cure a "spasmodic colic." Indeed, my later experience has been that intestinal colic is most quickly and most permanently cured by a full dose of some aromatic and stimulating cathartic, such as the tincture of rhubarb with ginger. There are cases, however, in which only a full dose of some active sedative will succeed.

I do not pretend to know how remedies of either class effect their good results—possibly the stimulating cathartics act by increasing still more the peristaltic action—but more probably by causing at first an inverted, or anti-peristaltic action, which inverted action frequently occurs for reasons which physiology explains, even in the normal condition of the intestine.

My only purpose in alluding to the matter of therapeutics, is to illustrate how little they can be relied upon as a means of determining the pathology of the disease now under consideration, or perhaps of any other disease.

I do propose, however, to refer presently to my own brief experience as to the effect of posture in these cases, and to apply this experience in illustration of the soundness of my theory; for the reason that it is the application of a purely mechanical treatment for the relief of a mechanical, not strictly physiological or pathological, cause or condition. The laws of mechanics are better known than the laws of therapeutics, and can be more safely applied in the solution of a question of this sort.

A young man was suffering from a severe attack of intestinal colic, which, after some hours, I was able to relieve by medication. On the following day he sent for me again, the colic having returned with about the same severity as before. It was probably two hours before I saw him, and then he was perfectly relieved. He at once explained that his friend, a young man at whose house he was a guest, had told him that he had often relieved himself of a colic by elevating his hips with pillows, or over the end of a sofa. My patient made the experiment, and immediately began to discharge gas from the rectum with the effect of prompt and complete relief of the colic.

More recently, in a similar case, I resorted to the same treatment in a case of severe colic, with a like result.

A mother of several children informs me that she has often noticed that, when her infants have been crying with colic, she has raised them by the feet, as if in the act of applying a diaper, and the change of position was followed by an escape of gas, and sometimes by a free fecal evacuation, after which the child was relieved.

These are all the facts of experience which I have to relate, but these seem to admit of no other explanation than the one I have given; and it was in fact from these few ob-

served facts that I have deduced the correctness of the generally accepted theory, and to substitute my own. The argument, however, seems to me to rest upon a much more substantial basis than these facts, namely:—The theory of spasm being rejected as impossible, the theory of displacement furnishes the only remaining rational explanation.

I will add just here, although somewhat out of place, that I have often observed that "We may often clearly perceive that the gas is driven forwards against the feces, or some other obstruction, and there arrived, excites the most severe pain."

To my mind the supposition that a doubling of the gut has caused this, in at least a majority of cases, rather than a fecal obstruction, is by far the most reasonable. This phenomenon occurs quite as often when they are solid. It occurs (without pain, however,) often when the patient is in perfect health. Gas can be felt confined in limited portions of the gut, forming phantom tumors, and which suddenly disappear. If one will listen with the ear against the abdomen, a similar phenomenon can often be detected, unaccompanied with pain, because there is no exalted sensibility, no spasm, and no violent peristaltic action.

In the cadaver I have often also witnessed this very doubling of which I speak. In attempts to inflate the intestine they have often become doubled upon themselves, and suddenly and completely arrested the passage of air, and this could only be overcome by pulling the intestines out, or by disturbing them in some way.

ILLUSION.

I have refrained from any illusion thus far to the fact that there is a well known condition of the intestinal tube called ileus, in which the existence of displacement is recognized as the anatomico-pathological condition, or more properly as the immediate cause. This displacement, consisting in most cases of a twisting of the tube, or of a convolution upon other portions; but a reflexion or doubling upon itself is not enumerated among the possible causes. The condition is attended with obstinate constipation, great pain and usually results in death. Ileus may occur at any age and almost in any portion of the alimentary canal.

It would seem to be a legitimate conclusion from the present argument, that ileus was essentially the same as what has been called "simple spasmodic colic," both being caused by mechanical obstructions arising from displacements and malpositions of the intestinal tube. The essential points of difference probably being that in colic there is simply a doubling of the gut, which is soon rectified by the natural actions of the intestines, or by the aid of medicines, while in ileus the twisting or entanglement being a form of displacement less easily rectified, is apt to continue to a fatal issue. It is even probable or possible that some cases called "spasmodic colic," and which have terminated favorably, were in fact slight cases of ileus, but in which cases the twisting was spontaneously rectified and a cure thus effected. We might therefore add to the doubling of the intestine as a cause of colic, the possible occurrence of a mere twisting of the gut—an incipient ileus: and it is not impossible on the other hand that there may be cases which are termed ileus, and which have terminated fatally, in which the sole cause of obstruction was a doubling of the intestine, and not a twisting or entanglement of the intestine.

What I have further to say upon this subject of posture in its application to other ac-

ferential. If elevating the lower portion of the body, so as to cause the heavy organs, such as the liver and spleen, to fall toward the head, dragging the intestinal viscera after them, can reduce a hernia or relieve a colic, it is reasonable to suppose that it might occasionally overcome an ileus or disengage an intussusception.

It is hardly necessary to say that the writer has no thought that the mechanical effects of posture will cure all, nor perhaps many of either of the maladies referred to; nor indeed that it shall be a substitute for any other suitable mode of treatment; but only that it be made to supplement other means, in the rational hope that it may sometimes prove effectual, or at least useful.

NOTE.—I wish to express my thanks to Dr. W. B. Birdsall of this city, for several of the references to German writers made in this paper, and to say that at my request he proposes to pursue the study of this subject experimentally.

It is also necessary for me to add that so far as the application of posture to the treatment of Hernia and Ileus is concerned there is nothing original in my observation, although the philosophy of the method which I have given, is probably new; and that in its application to spasmodic colic, both the method and the explanation are believed to be new. My attention has been called to the fact that some one has written very recently on the value of posture in the treatment of colic; but I have not seen the paper, nor do I know the name of the author, nor am I informed that the paper was published before the publication of my paper on Hernia, in which the views now expressed were foreshadowed. Of course this is a matter of no consequence to me or to the world, but I did not wish to be suspected of appropriating the suggestions of others, and of offering them as original with me.

HOSPITAL RECORDS.

BELLEVUE HOSPITAL, NEW YORK.

(Prepared for THE MEDICAL GAZETTE.)

TYPHOID FEVER, PERFORATION, INTES- TINAL HÆMORRHAGE.

William S., age 26, was admitted Oct. 18th. At the time of admission patient was unable to give any lucid account of himself, though very weak and feeble, he walked into the ward with some assistance. On being questioned he told a rambling, disconnected, unreliable sort of history, saying that he had been sick for four months, but what his symptoms had been during that time he had been unable to tell, hence it was impossible to obtain anything reliable of his previous history. When first seen immediately after his admission to the ward, he seemed to lie in a very feeble condition, face pale, cheeks sunken, eyes dull and lusterless, body emaciated, and on asking him to walk he did so with a tottering gait, like one drunk. He was immediately put to bed. His abdomen was found tympanitic, no positive signs of pain or pressure in the right iliac fossa were elicited; by the dim lights of the ward a few roseola spots were made out, but not with certainty, however. His pulse was regular, full, neither weak nor strong. Respiration regular and rapid; surface of the skin hot to the touch. Phys. examination showed the lungs and heart to be normal. The liver

Temp. in the rectum, 104½. Ord. quinine

11 A.M.—Was called early this morning to see the patient, stating that he had been bleeding from rectum. When seen the patient was seen slowly flowing from the rectum, while the patient was in a state of complete collapse. Extremities cold, skin blanched, face cadaverous in appearance, cold sweat on the forehead, pulse very rapid, 140, small, almost imperceptible; respiration rapid and shallow. A distinct, moderately firm tremor could be made out in the right iliac fossa, the rest of the abdomen was soft. Temp. rect. 104½. Ord. Terebinth., M. x t. i. d. ice to the right iliac fossa. Sol. morph. sulph. (U. S.) sufficient to keep patient quiet, and whiskey 3 ss every half hour. When put to bed the evening before he had been very restless, tossing about or standing upright in bed, so that it was found necessary to tie him down.

12 M.—Patient has rallied slightly, hands have a little sense of warmth, pulse stronger, and he seems to have a little consciousness of what is going on around him. Expresses himself as feeling perfectly well; flow of blood still continues from the rectum.

5 P. M.—Is again collapsed, seemingly as though from a second hemorrhage, blood being still discharged externally, the tremor in the right iliac fossa still apparent. Urine has been discharged involuntarily. Temp.

2—Passed a pretty quiet night; extremities and face are sensibly warm to the touch; discharge of blood from rectum stopped. The amount of blood lost during the last 24 hours must have been enormous; sheets, mattresses, blankets, and everything about him were completely drenched, the blood passing through the mattress and dropping on the floor beneath. Patient is completely blanched, though partly roused from his collapsed condition; no pain on pressure over abdomen; slight tympanitic tremor less apparent than yesterday; no signs of an eruption; takes but little food; temp. 102; whiskey as before; ice stopped. Ol. Terebinthinae, M. xq. th.; also gave M. x of a solution of ergotin (gr. iij to 3 i) last evening, and this morning M. xxx ether were given hypodermically last night with benefit.

12 M.—Condition almost the same as this morning, though he seems to have been slightly more collapsed. A small amount of tarry blood alone discharged from rectum. Tumor growing less distinct; no pain on pressure in abdomen; urine discharged involuntarily.

5 P. M.—No blood has been discharged from the rectum since noon; recognized his wife, who called to see him, and from her the following facts were ascertained: She says that patient up to present time of illness was a very healthy man; his illness began with malaise some four weeks ago, his sickness dating back to the time mentioned. Three weeks ago he suffered from nose-bleed; his symptoms during the three weeks have been high fever, delirium, constant desire to get out of bed, requiring continual watching; great thirst and profuse diarrhoea; no blood was noticed in the passages; temp. P. M. 102.

Treatment as before, viz: whiskey 3 ss q ½ h.; sol. morph. sulph. (U. S.) sufficient to keep him quiet; ol. Terebinth. M. x q. i h.; sol. ergotin M. x this evening hypodermically, and M. xxx of ether also hypodermically without losing any more blood. Patient slowly sank, and this morning at half past six he died.

Autopsy 3½ hours after death.

Brain not examined.

Lungs very dry and completely blanched. Blood, with difficulty, pressed from them; otherwise normal.

Heart.—Firmly contracted, pale.

Liver.—Slightly enlarged, firm, very anæmic.

Spleen.—Enlarged; not softened or congested.

Kidney.—Larger than normal, pale; otherwise perfectly healthy.

Small Intestines.—Numerous small, round, elevated ulcers in the jejunum. The ileum was the seat of numerous ulcers, varying in size from a pin's head to a silver dollar, and increasing in number toward the ileo-cæcal valve. Those in the upper part of the ileum had cleared up, while those closer to the valve, which were principally large ones, still remained sloughy, showing black, loosely-attached dead masses seemingly ready to separate. The valve was completely covered with ulcers. Within an inch of the valve a round, punched out perforation was found, the edges of which were smooth and black. The perforation was in the center of a large, sloughy ulcer, and about half an inch in diameter. The mucous membrane of the gut was pale, with spots of ecchymosis scattered over the surface.

Large Intestines.—Numerous small round ulcers were found in the cæcum and lower portion of the ascending colon, having elevated edges and sloughy base.

Appendix Vermiformis.—Two small superficial ulcer about the size of a split pea were here found.

The intestines found in the right iliac fossa were agglutinated together to the anterior abdominal wall, and to the bladder, a local peritonitis having taken place. On carefully separating the gut from the abdominal wall, the perforation was found, the portion of small intestine in which it was contained being closely and firmly attached to the wall of the abdomen. This local peritonitis and adhesion accounted for the fact that the contents of the intestines had been discharged into the peritoneal cavity. There was no sign of peritonitis in general. But little blood was found in the intestines, that present being dark in color and thick, the greater part probably having been discharged by the rectum.

Mesenteric Glands.—Slightly enlarged, the largest being about the size of an ordinary chestnut, in section somewhat white and firm. Others were congested and firm, while still others were dark in color, soft and necrotic.

SOCIETY PROCEEDINGS.

MEETING OF THE N. Y. ACADEMY OF MEDICINE, DEC. 4TH.

Reported for THE MEDICAL GAZETTE.

The meeting was called to order at 7:30 P. M., the President, Dr. Fordyce Barker, in the chair.

The minutes of the last meeting were read by the secretary, Dr. Hanks, and approved.

The reports of the officers for the term just ending were read by the incumbents.

The librarian reported that there were about 10,000 volumes in the library. The library committee recommended that there be established a circulating department and a journal department. These recommendations were adopted.

The committee on admissions reported favorably on the following for resident fellows: Drs. Dawson, Jacobus, Burchard,

Van Santvoord, Dessau, Hills, Jackman, Read, Miranda, Putzel, Reid, Schaffer, De Garmo, Fruchtnicht, Peters, Chamberlain, McBride, Hunt and Warner, and on Prof. Wm. Goodell for corresponding fellow. The vote on these candidates was taken during the reading of the paper of the evening and the subsequent discussion, and they were all elected.

The same committee also announced that the following had been proposed for resident fellowship: Drs. D. B. Delavan, George H. Fox, Daniel Lewis, B. L. Detzler, Frank P. Kinnicut, Henry N. Heineman, F. H. Bartlett, A. C. Benedict, also that Elias March had been proposed for corresponding fellowship.

The nomination of officers was then proceeded with. For Vice President there were nominated: Wm. H. Draper, Frank H. Hamilton, John C. Peters. Dr. Hanks was nominated but declined.

For Recording Secretary the nominees were: E. F. Ward, E. D. Hudson, Jr. Dr. Hanks was nominated but declined.

For Corresponding Secretary John G. Adams was nominated.

For Treasurer Dr. Farnham was nominated.

For Members of the Committee on Nominations: Drs. Blumenthal, Herrick and Morris were nominated.

For Members of the Committee on Medical Educations, John C. Dafton, Frank H. Hamilton, Cornelius R. Agnew.

For members of the Committee on Medical Ethics, Wm. M. Polk, A. H. Smith, Thos. T. Sabine, A. B. Judson, V. P. Gibney, William M. Chamberlain. Drs. J. L. Banks and Hanks were nominated, but declined.

For Trustees, F. N. Otis, Austin Flint (dec.), W. T. Wyeth, Blumenthal, Hanks.

For Members of the Library Committee, E. D. Hudson, Wm. H. Hall.

For Delegate to the State Society, Clinton Wagner. Drs. Billington and Piffard declined.

The paper of the evening was then read on

SOME OF THE CHRONIC AFFECTIONS OF THE TONSILS FROM A DIAGNOSTIC AND THERAPEUTIC POINT OF VIEW.

by Dr. George M. Lefferts.

The work of the specialist and of the general practitioner, said the author, both had the same object in view; the alleviation of suffering, the cure of disease. Therefore the specialist could often, by reason of the greater opportunity for study afforded him by his more narrow sphere of practice and the more accurate investigation which he could make, bring new light to the assistance of the profession at large or aid the better understanding of a particular set of affections. It was not long since laryngology became a specialty, but in that short time it had shown great activity. More accurate means of diagnosis had led to a more exact knowledge of disease; many new therapeutic agents had been introduced and proved to be valuable, and many old ones, upon which great reliance had formerly been placed, had been shown to be worthless.

The first thing in the study of diseases of the throat, or, indeed, in the study of any disease, was to learn to see properly; and in this respect the author would call attention to the advantage of using the concave reflector of the laryngoscope with an artificial light; it could be used at any time, and in any situation, with the crying child or with the adult and without disturbing the patient. He deplored the tendency to inexactness of nomenclature in the diseases of the tonsil, not only among the laity, but among the profession as well;

Dr. Douglas, being called upon, said he had listened with pleasure to the paper just read; the graphic description of the diseases then described must have struck all, being in a manner comprehensible to everybody. But there was one point to which attention should be drawn, which was an agent both in producing the conditions of the tonsils and in

The best and most recent writers assign to

the suggestion of Van Troch should have received further attention; the nostrils should be closed and the act of swallowing begun. He had tested it by painting the fauces with tincture of iodine and using as a gargle starch; the latter had been turned blue.

Dr. Lincoln said: as to the effect of enlargement of the tonsils on the ear; it had been his fortune to see a number of cases of pain in the ear from enlargement of the tonsils. The nerves to the tonsil come mainly from the glosso-pharyngeal; this has also a tympanic branch; hence there may be reflex action. There might also be some connection by the otic ganglion of the sympathetic. Within the past week an attempt to remove inspissated mucus from the tonsil had been followed by pain in the ear sufficient to cause sleeplessness. These collections of inspissated mucus often required treatment; they ought to be treated by injection or by a mixture of one part carbolic acid to 8 parts compound tincture of iodine. Three or four applications to the crypts would remove the inspissated mucus and produce a healthy secretion. When this was not successful, the removal of a small part of the tonsil or galvano-cautery should be practiced. These collections sometimes became so excessive as to produce serious symptoms and occasion alarm.

Dr. Bosworth agreed with Dr. Robinson that follicular tonsillitis was a croupous inflammation with a croupous exudation into the follicles. As to treatment, of late he had destroyed the membrane by nitrate of silver on an aluminum probe and given large doses of quinine. As to the results of chronic enlargement of the tonsils, he agreed with Dr. Lefferts as to the tainted breath and dyspepsia, but thought that the pigeon-breast, displaced ale of the nose, etc., were the result of rickets.

As to the abortive treatment of abscess of the tonsil, he believed that he had aborted it by giving ten grains of quinine, followed by five to ten drops of Fleming's tincture of aconite, repeated till dryness of the throat, ringing in the ears, and nausea showed its constitutional effects. He believed that a distinction should be made between catarrhal, croupous, and diphtheritic inflammation; the latter was a constitutional disease with local manifestation; the two former were merely local affections. Dr. Smith said: "As to incision of the tonsils, the wounds to let out blood must be as extensive as excision; hence the latter was the more rational procedure. The reason why the tonsil did not atrophy after removal of a part of it was that the upper portion from which it received its blood supply was not always removed. A good way of cauterizing the follicles was to heat a probe and put it into powdered caustic; the particles adhered, and by heating the probe again, became smooth."

Dr. Burrall said: As to the use of the laryngoscopic mirror in general practice, all would endorse the remarks of Dr. Lefferts. In the matter of treatment he would advance the opinion that gargles were of use. If used as a temporary substitute for poultices they did good; a warm gargle frequently repeated gave relief and aided suppuration. In chronic disease, benefit was derived from spray and steam; in acute from gargles. In caseous tonsillitis he found benefit in removing the caseous masses by the director. In treating throat-diseases, the system should be treated: the throat sympathized with the system as shown by the effects of puberty, women's diseases, syphilis, etc. In the beginning a mercurial purge is never amiss. As to the infectiousness of throat-diseases, he thought that all throat-diseases should be treated as if they were infectious, as he had

observed them to spread in the family. Time was one of the most important elements of treatment; many cases could be broken up by sufficiently early and frequent attention. Dr. Lefferts, being called upon to close the debate said that he would not detain the meeting by any further argument, but wishes to return thanks for the consideration which had been accorded to his paper and himself. Dr. Barker announced the death of Dr. Freeman J. Bumstead, and appointed Dr. George A. Peters to prepare a memoir. An amendment to the constitution was proposed, that each resident fellow on admission should pay twenty dollars (formerly five), to take effect after the 1st of Jan. 1880. Carried.

It was announced that the anniversary meeting would be held Dec. 11th, and that Dr. Leroy Milton Yale would deliver the address on "The Academy as an Educator." The Academy then adjourned.

He believed that quinsy sore throat was a catarrhal inflammation. The chronic inflammation was of a catarrhal character. It might originate from inflammation, extending down from the nares to the lining membrane of the follicles, causing the latter to become swollen by the retained products of inflammation. The great point in treatment, therefore, was to relieve the inflammation of the posterior half-arch. He had been familiar with the operation of ablation of the tonsils from his earliest practice in the office of his brother-in-law, Dr. Green. This inflammation could be reached by gargles; the only way was to introduce a syringe between the tonsils and inject forcibly, when great masses of mucus could be washed out. This could be repeated four, six, or eight times a day. It gave the patient sleep at once.

In chronic tonsillitis, where the inflammation extends to the mucous crypts, a similar plan could be used, the syringe with a small nozzle being introduced into the body of the tonsil. In three days a remarkable change would take place and the physician would rarely fail to reduce the largest tonsil. He did not approve of the use of silver nitrate.

As to hemorrhage after ablation of the tonsil, it would be found that the hemorrhage was kept up by a coagulum of blood keeping the mouths of the blood-vessels wide open; if this was washed out, the hemorrhage would cease.

Dr. Beverly Robinson being called upon, said he would first direct attention to follicular tonsillitis. This subject had been very ably treated of as membranous sore-throat or herpetic tonsillitis in an article in *Hay's Journal*. He agreed with Dr. Lefferts as to the frequency of error in confounding this with diphtheria. There was only one practical way of differentiating the two affections. Catarrhal tonsillitis was not to be taken as a guide; follicular tonsillitis Dr. Robinson believed to be also contagious. He had seen a false membrane in this affection also but when it fell off it never reappeared as in diphtheria. In the latter affection also, even if only slight, there was albumen in the urine. He agreed with Dr. Lefferts as to the sequelæ of chronic inflammation of the tonsils; where he could not excise he might use silver nitrate. He was disposed to believe that "herpetic tonsillar disease" was the same thing as inflammatory croup with a different localization.

Dr. D. B. St. John Rossa was sorry that the term "throat deafness" had come into use. "Throat deafness" indicated that disease of the throat might produce deafness; but there was no such thing. We should say catarrhal deafness when we mean deafness coming from inflammation of the Eustachian tube. He believed that inflamed tonsils never pressed on the Eustachian tube sufficiently to produce deafness but the enlargement of the tonsils was coincidental, the disturbance of hearing depending on catarrh of the lining membrane of the Eustachian tube.

In acute tonsillitis there was no defect of hearing. As to gargling, he believed that

MEDICAL NOTES AND NEWS.

Antiseptic Dressings on the Battlefield.—Prof. Esmarch, at the reunion of the German Surgical Society, last April, proposed that in active service each soldier should be provided with a little package, easily carried on the person, containing a gauze bandage, a triangular compress and some salicylated cotton, the whole done up in waterproof parchment. These would enable him on the battle-field to prepare at once a temporary antiseptic dressing. The suggestion appears to be an excellent one.—*Chicago Med. Gaz.*

The *Chicago Medical Gazette* is a new candidate for professional favor. It is to be published semi-monthly and is edited by Dr. E. C. Dudley, formerly House Surgeon at the Woman's Hospital of the State of New York. The first number gives evidence that much care and attention is bestowed on its preparation, and if the succeeding numbers are as good we shall congratulate the medical press upon this acquisition.

Jefferson Medical College.—The students of Jefferson Medical College have presented the trustees with an oil painting of the late Prof. Meigs.

The *Boston Medical and Surgical Journal* changes its form with the issue for January 1st. It now appears as a quarto sheet. We congratulate it upon this step in advance.

The Dose of Podophyllin.—Contrary to our established rule we desire to speak of an advertisement which has been running in our pages, in order to make a correction and render justice to the advertisers. In the list of capsules of Victor E. Manger & Petrie, for four weeks past, those containing castor oil have read, "Castor oil, 10 minims, ½ gr. podophyllin." The quantity of podophyllin should have read ⅛ gr. The advertisement appears correctly in this issue.

The Visiting Staff of the Pa. Hospital.—Dr. Morris Longstreth has recently been elected visiting physician to the Pa. Hospital to fill the vacancy in the staff, created by the death of the late Prof. J. Aitken Meigs.

MEDICAL GAZETTE,

A Weekly Journal.

EDWARD J. BERMINGHAM, A.M., M.D. EDITOR.

PUBLISHERS' NOTICES.

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CHAS. L. BERMINGHAM & CO.,
Publishers, 19 Lafayette Place, N. Y.

NEW YORK, SATURDAY, JAN. 3, 1880.

OUR ENLARGEMENT.

With the present number of THE GAZETTE we inaugurate the new features announced in our last issue, and present to our readers, not only a thoroughly scientific and practical journal, but also a medical newspaper, in which we shall give, weekly, all the current news of interest to the profession. THE GAZETTE, in its present shape, is, with the exception of the great London weeklies, the largest medical journal published in the world, by which we mean that it contains more reading matter, irrespective of the number of pages. It shall be our endeavor now to maintain the character of the communications appearing in its pages, and to make it indispensable to every progressive practitioner. The growth of THE GAZETTE has been a healthy one from the beginning. Originating as a small monthly, it has slowly and steadily increased in size to meet the demands of its many readers and the profession, until now we think we can claim for it the leading position in American medical journalism.

RELATIONS BETWEEN PHYSICIAN AND DRUGGIST.

During the past few months we have repeatedly agitated the relationship existing between the physician and the apothecary, throughout the larger towns and cities more especially. The medical press throughout the country have endorsed our opinions and many of them are doing good work in keeping the matter constantly before the profession. We subjoin extracts lately appearing in two of our contemporaries:

"The practice of substitution of drugs, in making up prescriptions, is a growing evil,

of physicians. It generally occurs in cases where the druggist has not sufficient stock on hand, either through lack of capital or negli-

not refuse to fill the prescription, but uses his own discretion in selecting some substitute, which, in his opinion, will do equally as well. This may occur hundreds of times without the physician being any the wiser, and perhaps in the majority of cases no positive injury is done to the patient, for, in substitution, the more potent remedies will be avoided; but at times the omission of an ingredient in a prescription may be criminal, and the most serious results may ensue.

This practice destroys the whole value of medication, and places the life of the patient and the reputation of the physician at the mercy of the drug clerk compounding the prescription. The following instance occurring in this city, and under our observation, a short time since, illustrates fully the dangers of this abuse. A prescription of

Strychnia pur.,
Acidi. arseniosi, ʒi. gr. j. ℥. ss.
Ft. pil. no. xl.

S: One to be taken after meals,—was prescribed to a patient who was a physician. One pill was taken a short time after dinner. In about a half hour a violent pain in the stomach was experienced, with nausea and vomiting, and this was followed by cold

As the patient himself had often prescribed the same prescription, he did not credit the drugs with being the cause of his symptoms, but rather ascribed it to a sudden attack of indigestion; he therefore took another pill after his supper, when there occurred a repetition of the same symptoms, only of a more aggravated character.

The prescribing physician called at the drug store at which the prescription had been compounded, and asked to see the arsenious acid used in the prescription. The druggist brought down from his shelves a half-gallon

Here we have a clear case of arsenical poisoning, due either to the rascality or gross ignorance of the druggist—a substitution of cobalt or crude arsenic for arsenious acid. The life of the patient was put in peril, and had the patient not been a physician, the reputation of the prescribing physician would have been compromised.

Another and a less injurious mode of substitution is in substituting the preparation of one manufacturer when that of another is prescribed. We know of a case where a druggist urged a patient to take a preparation of

ment eastern firm was distinctly marked on the prescription. A druggist may feel certain that articles of his own make are superior to others, or he may have such confidence in a certain manufacturer, as to deal solely in his goods; still every physician has his preferences, and his prescriptions should be filled strictly according to his written orders. He, and not the druggist, is the judge to decide on the choice. If he has not the article in stock, or cannot or will not get it, it is his duty to retain the prescription until he can get the consent of the physician to the substitution. If a prescription be of any value, it should be filled strictly according to letter, unless of course there is an error in it that is perceptible to the druggist, and which may be injurious to the patient—but even if he fills it, the responsibility rests entirely on the physician.'—*St. Louis Courier of Medicine.*

again has the doctor failed to afford the relief

of base substitutes or improperly compounded prescriptions. Not long since we had occasion to prescribe some calcined magnesia for an infant, judge our horror when we found that the sulphate of magnesia had been substituted. Example after example can be cited to at once establish the fact that there should be a demand for educated pharmacists.

It is time that the physicians of New Orleans were taking action to protect themselves from the impositions of druggists and apothecaries. The knights of the mortar and pestle, instead of attending to their legitimate duties, compounding the prescriptions of physicians and in good faith repeating these only when especially ordered, derive quite a revenue from the sale of repetitions; thus injustice is done the doctors, and the way is paved for weak-minded men and women to become the victims of opium, chloral or alcoholic drunkenness.

Is it dealing fair with the physician for the druggist to fill on demand an old prescription ordered for some particular case, but now lauded around and handed about by neighbors who administer the remedy in cases of sickness when the diagnosis is the result of no greater skill than that possessed by an old woman?"—*N. O. Med. and Surg. Jour.*

In our correspondent's column may also be found a communication called forth by a late editorial in the GAZETTE, and which deals with the same subject. We wish all our readers would give this matter their attention; and would communicate their views to us.

THE AUDIPHONE AT THE PHILADELPHIA DEAF AND DUMB ASYLUM.

Mr. Richard S. Rhodes, of Chicago, inventor of the audiphone, gave an exhibition of the powers of that instrument before the directors and teachers of the Philadelphia Deaf and Dumb Asylum, Broad and Pine sts., lately. There was a large attendance of visitors, and the experiments were conducted with mutes in the institution. The audiphones exhibited were of two kinds. The conversational audiphone is a fan like instrument made entirely of hard rubber. The fan itself is a very thin plate of rubber about eight inches square. A silk cord is attached to the plate near its upper edge, and, passing down through the handle where it is held by a clutch, is used to bend the plate over. Having been bent over the convex side of the bent plate is held towards the source of sound, while the upper edge is pressed against the edge or end of one or more of the upper teeth, the eye teeth generally giving the best results. The vibrations of the upper edge of the disc caused by sounds impart the sound waves to the teeth, and through the auditory nerve to the brain. The "opera audiphone," for use at lectures, concerts, etc., is similar to the other, except that it has two plates or discs which, on being bent down, describe two different curves, so that they are an inch or more apart in the centre, while the edges of both discs are pressed against the teeth. By the use of this a deaf mute can hear the sound of his own voice.

Mr. Rhodes, after exhibiting the two different kinds of audiphones, said that in trying experiments in many asylums he had found that where the conditions were the same the results were the same—with good brains,

Dr. E. C. Seguin said that the American asylum system was as bad as the asylum buildings were ungainly, and that the latter were extravagantly expensive and inadequate to the wants of patients. It was a great defect in the system that the asylums were overcrowded. At Utica there were 600 patients; at Willard 1,300; in the Kings County Asylum 700; on Blackwell's Island, over 1,200, and on Ward's Island, 1,000. "I maintain that no man can, alone, look after the inter-

ests of such a large number as are placed under each superintendent. Then there is a commingling of acute with chronic cases in the asylums, while the needs of these two classes are very diverse. In the asylums of this State there is little or no opportunity for patients to work. They are permitted to sit and brood over their troubles by the hour, even their promenade being restricted by want of room. The asylums of this city especially are entirely behind the times. They have the most remarkable crowding together of curable and incurable patients. The food, I have reason to believe, is sufficient in quantity, and I'm not so sure of its quality as the cost of maintenance has been reduced to twenty-six cents a day per patient or less. Assistant physicians are appointed from among under graduates in medicine. From 1876 to 1878 inclusive, nine gentlemen served on Blackwell's and Ward's Islands as assistant physicians before graduation. I would ask you to notice, however, that no such illegal appointments have been made since the Neurological Society began to agitate the matter last autumn. We should demand the creation of a hospital for acute cases of insanity, and a distinct asylum for the incurable insane. The assistant physicians are at present appointed merely on recommendation, without a competent examination. After entering the asylums they are almost immediately put in charge of wards, and have each the care of from 100 to 250 patients. Then these assistants receive little or no instruction from their chiefs. But a more serious matter is that superintendents are in time chosen from among their number. The following resolutions were then adopted:

Resolved, That it is a seriously defective system of the care of the insane which intrusts them to the exclusive control of the officials of asylums, and it should be abandoned in this country wherever it exists, as it has been abandoned in other countries. That a lunacy commission, somewhat on the plan of the lunacy commission that have so long been in successful operation in Great Britain and elsewhere, should be appointed. The duties of such commission should be to personally supervise insane asylums, both public and private; attend to complaints and controversies and to raise the standard of the scientific study and treatment of the insane. That a committee be appointed by the chairman of this meeting to devise a plan for the organization of such a lunacy commission, to present to the next Legislature a bill for its creation, and to advise with the Governor and State Board of Charities in the selection of the members of said committee.

Resolved, That this meeting also earnestly recommend the organization of a national association for the protection of the insane, and that the committee here appointed take steps for the formation of such association.

WILLIAM C. CHURCH.
DORMAN B. EATON.
CHARLES E. WHITEHEAD.
GEORGE M. BEARD.
E. C. SEGUIN.

COTTAGE HOSPITALS.

One of the greatest boons to the rural population of England of late years has been the establishment of cottage hospitals. The first institution of the kind was at Savernake, in Wilts. In 1867 a poor farm laborer was badly injured by machinery, and had to be carried miles to a doctor, and then forwarded ten miles further to a hospital. The case so impressed the Vicar of Savernake that the idea occurred to him to try and establish a cottage hospital. He found warm and generous coadjutors in

Lord and Lady Ailesbury, the chief landowners of the parish. Lord Ailesbury gave a large sum, and several acres, in a lovely situation, and in due time the thing was done. During the past year 211 cases have been treated with every comfort and convenience, and attention, at a cost per bed of \$3.75 a week, and the mortality among them was only a decimal fraction more than three per cent., against nine per cent. at Guy's, ten per cent. at St. Bartholomew's, and sixteen per cent. at St. Thomas's, the great London hospitals. In case of amputations the advantage is enormously in favor of the cottage hospitals, in consequence of the purity of their air.

THE AMERICAN PUBLIC HEALTH ASSOCIATION AND THE NATIONAL BOARD OF HEALTH.

The following resolutions were adopted at the late meeting of the American Public Health Association:

(1.) *Resolved*, That in the opinion of the American Public Health Association, the present National Board of Health has been of such vast service to the country that it is not expedient to make any essential change in its organization, and that any minor improvement in details should be left to the board itself.

(2.) That the investigations which have been commenced by the board are approved, and should be continued, and that similar investigations should be undertaken by it into the consideration and prevention of other diseases as well as yellow fever.

(3.) That Congress should appropriate sufficient funds to enable the board to employ the best talent and apparatus in such scientific and practical inquiries.

(4.) That the operation of the existing quarantine law, and of the rules and regulations prepared by the National Board of Health on that subject, have accomplished great good, and that no change in the law should be made without the most careful and serious consideration.

(5.) That in the opinion of this association the national quarantine should be under the direction of the National Board of Health and of an executive committee, to be selected by that body.

(6.) That this association has no suggestions to make with reference to any amendments to existing legislation in regard to quarantine, preferring that they should come from the National Board of Health, as the most competent body to advise whatever may be best.

(7.) That it is expedient for the National Board of Health to call an international congress for the discussion of the very important subjects of international sanitary quarantine, etc.

(8.) That it is the duty of the general government to build, equip, and conduct, at the mouth of the Mississippi River, a quarantine station at such a place as may be designated by the National Board of Health.

(9.) That the secretary of this association be instructed to forward to the National Board of Health a certified copy of these resolutions, together with the reports and documents of the advisory council; and that the executive committee be instructed to take such action, during the next session of Congress, as may seem best suited to promote legislation in accordance with these resolutions.

SELECTIONS FROM JOURNALS.

TREPPHINING FOR TRAUMATIC EP-

ILEPSY.

Mr. West of Birmingham brought before the Royal Medical and Chirurgical Society a case in which trephining had been successfully employed by him for traumatic epilepsy in a girl aged 14. The injury was due to a blow from a stone, which caused fracture of the skull and concussion of the brain. Since 1871, when it was inflicted, the girl had been subject to epileptic fits, which had year by year increased in number and severity, until they had at last reduced her to an almost idiotic state. Two circles of bone over the site of the depressed fracture (which was, however, found to involve only the outer table) were removed on November 25th, 1878, with antiseptic precautions. From that date the girl began to improve: speech returned, also the power of controlling the bladder and rectum. Antiseptic treatment was discontinued on December 3rd, and at the end of the month she left the Queen's Hospital cured; and from that time to the present she had no return of the epileptic convulsions. Mr. West gave a brief *résumé* of the surgical writings on the operation of trephining for epilepsy, calling special attention to the work of Dr. Lucas Championnière on the subject (*La Trépanation guidée par les Localisations Cérébrales*, Paris, 1878), and to the valuable paper by Dr. Echeverria on Trephining for Epilepsy depending upon Injuries of the Skull, in the *Archives de Médecine* for December, 1878. He considered that the trephine might be applied with advantage in many cases where epilepsy was dependent on a traumatic origin; that there were, owing to recent discoveries in physiology, valuable indications to be derived as to the exact nature of the lesion, and the site at which the operation should be performed; and lastly, that, with antiseptic precautions, trephining might at the present day be performed with a greater prospect of success than it formerly could have been, and that it might now, therefore, be looked upon as a justifiable operation.

Dr. Althaus said that Mr. West's paper was one of much interest; but he believed that epilepsy following injury of the cranial bones was extremely rare. In 3,000 cases of epilepsy which had come under his notice during the last fourteen years, he had found none traceable to injury of the cranial bones with depression or decided lesion. There was indeed a history of injury in some cases; but in most of these the patients recovered under the use of iodide of potassium. It was remarkable that in Mr. West's case an injury of the skull on the right side was followed by aphasia; but cases of aphasia had been met with in which the third left frontal convolution was not affected. The function of speech was evidently bilateral, and was under the control of the right hemisphere as well as of the left. He doubted whether cerebral localisation could guide the surgeon in the selection of the locality for operation. The aphasia would have suggested operation on the left side; and the motor centres were not in the frontal but in the parietal region. As regarded the operation of trephining for injury of the skull, the practice was not so successful as the published cases indicated. In France, the operation had been strongly opposed by M. Gosselin, on account of its danger. The directions given by M. Lucas-Championnière were very difficult to follow, and appeared to be rather calculated for physiological research than for surgical practice. Mr. Bellamy had had a case at Charing

operation. Mr. T. Smith asked whether Mr. West intended the recovery to the trephining. Mr. F. Durham had, as surgical registrar of Guy's Hospital, seen two cases of trephining for traumatic epilepsy. In one case, under the care of Mr. Cooper Forster, the fits diminished after the operation and at last ceased. In the second case, under Mr. Harvey, the operation was done antiseptically. The patient recovered from it, but the fits returned. In neither case was trephining followed by any local results. Mr. Bryant asked whether something less than trephining would not be sufficient in these cases. A man under his care had had a scalp-wound, which was followed by severe localized pain. Mr. Bryant thought he felt a depression in the site of the cicatrix, and made an incision; the bone was found quite healthy, without any sign of injury. The remarkable fact was, that the patient was relieved of his pain by the incision, and had no return of it. He had adopted the same treatment in two other cases of injury of the head with cerebral symptoms, in one of which there were convulsions. He agreed with Mr. Holmes that trephining was not a safe operation; the membranes were often liable to be injured. In certain cases of epilepsy, however, following injury of the skull, trephining was justifiable; he had once performed the operation under such circumstances, with some success. He was surprised to hear of Mr. Hutchinson's success with anticipatory trephining in cases of depressed fracture.* Dr. Douglas Powell asked whether the injury to the skull in Mr. West's case was regarded as a direct or an indirect cause of epilepsy. He had seen a case in which an exostosis on the tibia, the result of a kick, was followed by epileptic symptoms, which were lessened in frequency after trephining the tibia. Mr. West said that his case was in some respects remarkable. He did not pretend to think that the report of a single successful case would lead to the adoption of trephining in all cases of traumatic epilepsy; but where the conditions were analogous to those in his case, trephining would be not only justified but demanded. When he operated, he expected to find a fracture with depression, and was much surprised at finding none. The result, however—whether *post hoc* or *propter hoc* he would not say—was a remarkable alleviation of the symptoms. He agreed with Dr. Althaus that cases of epilepsy attributed to traumatic causes were rare; but he believed that careful inquiry would show injury to be the source of epilepsy more often than was supposed. It was rarely that a history of injury could be obtained in cases of disease of the spine or hip-joint; and yet injury was known to be the starting point of the disease in a number of cases. The same might be the case with respect to injury of the head as a cause of epilepsy. No operation should be undertaken until all medical means had been tried; but he doubted whether, in such a case as his, iodide of potassium would have been of use. Regarding Mr. Hutchinson's suggestion of *contrecoup*, he thought this was not so common as was supposed; and it could scarcely have been the source of the epilepsy in his case, for, if it had been, why should not the epileptic fits have continued after the operation? He agreed with previous speakers that trephining should be done at the seat of injury. He thought that trephining performed with care and under antiseptic precautions was not in itself dangerous. He had never tried simple incision as de-

scribed by Mr. Bryant, and could not understand how it acted. In reply to Dr. Powell, he said that he thought the epilepsy must have arisen from reflex irritation.—*Brit. Med. Journal.*

LACERATION OF THE CERVIX

UTERI. BY WM. GOODSELL, M. D.

GENEALMEN.—We have to-day before us a not infrequent sequela of childbirth. This woman has suffered long from obscure pains in the pelvis and loins, accompanied by a leucorrhœal discharge and a condition of mental depression which is often found when there is an unhealed laceration of the cervix uteri.

Laceration is an accident of labor, and may be due to premature rupture of the bag of waters which Nature intended should effect the gradual and safe dilatation of the os and cervix, so as to admit of the easy passage of the head of the child. I cannot, myself, but think that many cases of lacerated cervix are due to meddlesome midwifery. The physician comes, and, after waiting a while, thinks he will save his own time and the mother's by rupturing the membranes, as he knows this is almost always followed by a speedy expulsion of the contents of the womb. Sometimes, too, it is caused by the use of the forceps, or by the attempt to push the upper lip over the child's head, so as to hurry matters a little.

I have found, of all the women that come to me, about one in six have a laceration of the cervix; a proportion which indicates, I think, that too much interference in labor is no improvement on Nature's method.

Now let us see how this injury does mischief. When I draw down the womb, you see that the cervix has been torn across, and each edge is everted, just like the curling over of celery-tops when they are split before putting on the table. As a consequence, the delicate membrane lining the cervical canal is exposed, and, as the conjunctiva, when everted and exposed, becomes inflamed and purulent and often sets up further eye-troubles, so this membrane, rubbing against the vagina and receiving the impact of the male organ in coition, becomes irritated and inflamed. With this there is an accession of blood to the part, and the process of involution is stopped.

Now, how shall we diagnose such an injury? It is not as generally done as it should be. Ninety-nine out of a hundred physicians—no! to keep within bounds, I will say ninety out of a hundred—would call this an erosion or ulceration of the cervix, and treat it with caustic applications. Perhaps after a long while they would get enough cicatricial contraction to lead them to suppose it cured, only to see it return within six months. But, to prove what we have to deal with, I will seize each side of the os with a tenaculum and draw it downward. The edges now come together, leaving a fissure and hiding the raw surface you saw before. If you can thus make the erosion disappear you may be pretty sure you have a laceration of the cervix to treat.

In the present case we have what is called a stellate laceration,—a number of tears radiating from the cervical canal.

The operation in this case will consist of the removal of a wedge-shaped piece from each side of the fissure. The lower one will be done first, so as to avoid the difficulty which would be caused by the blood trickling down from the upper wound if the lower were left till after it.

And here let me give you another test of lacerated cervix. Sometimes in slight or in old cases you cannot tell for the life of you—

plan, in quarter-grain doses every three hours. Mr. Jonathan Hutchinson thanked Mr. West for the report of his case and for the evidence which he had collected. As regarded the occurrence of aphasia with injury to the brain, he believed that the injury was limited to the fracture; there

was possibly quite distinct in origin from the other symptoms. He preferred the old rule of trephining at the place where the fracture was, rather than at a place where the fracture was not. He agreed with Dr. Althaus that epilepsy after injury of the cranial bones was not common; he had never been asked to operate in such a case. He believed that the operation of trephining was in itself not

dangerous, whether performed with or without antiseptic precautions. The statistics of the subject were very fallacious; in many cases, the patients died of causes independent of the trephining. No operation had suffered more in repute from loosely collected statistics than trephining. He had

often trephined in cases of compound fracture of the skull in anticipation of cerebral irritation. In one case, Mr. Guy had done so, and the patient recovered. In another case, at Great Northern Hospital in consequence of having attempted

to cut his throat. Four years previously, he had fallen from a height and fractured the skull in the right parietal region. Portions of bone necrosed, and after a time the wound healed; after this, he became despondent, and was unable to

work, and attempted suicide. At the *post mortem* examination, a portion of the inner table, rounded, and without sharp edges, was found driven in just in front of the fissure of Rolando; it was adherent to the dura mater, and passed on to the

brain-substance. No trace of disease could be found elsewhere in the brain. Pressure over the seat of injury in this case produced hallucinations of sight, which became more distinct if the pressure were increased. Immediate trephining after injury was a dangerous operation, and only to be done under

the most favorable conditions. In which trephining was performed on account of epileptic symptoms following injury to the head. The dura mater was injured in the operation, and the patient died of meningitis. At the necropsy, chronic inflammation of the brain

was found. Such a case, however, afforded no argument against operating in cases where the patient's condition was evidently tending to death. Mr. West's

* Mr. Hutchinson was what is called a *contrecoup* fracture. What Mr. Hutchinson is referred to was, I presume, trephining in compound fracture, not in any case of depressed fracture.

ally we must be cautious of doing anything which may enfeeble the heart. Jurgensen emphasizes this caution strongly (*German Clinical Lectures*, New Sydenham Society, 1876), and I quite agree with him, though I do not think his heroic measures are often requisite. Though we cannot cure the disease, we may, however, materially mitigate its severity, and sometimes no doubt save life. Ergot and liquor ferri perchloridi may check and control the inflammation; opium may allay pain, and calm and steady the nervous system; bark and ammonia, with

which may give tone to the failing heart, especially in the collapse of the crisis; effluvia of saffron, or brandy and soda-water, with or without a dose of two of chloroform, may quiet gastric irritation, and enable the patient to take food better; quinine in large doses, or the cold bath, may serve our need in dangerous hyperpyrexia. There is plenty of time for treatment and well directed action; but, as we have only to gain time to win, no risk should be incurred with the idea of cutting short the disease. Such, at least, is my experience in London. It would be very interesting to know whether that of other practitioners elsewhere is different. Hjaltekin's in Iceland certainly seems to have been so, but Dr. Hughes Bennett's, at Edinburgh, and Jurgensen's at Kiel, is essentially similar. With regard to ergot, I may mention that, though I have tried it in various inflammatory affections, notably in bronchitis, it has on the whole disappointed my expectations. Theoretically, it ought to be a great remedy for inflammation; but practically, it has not often accomplished

MASTURBATION AS A CAUSE OF INSANITY.

At the close of a discussion of this subject, the *Journal of Mental and Nervous Disease*, (October,) Dr. Hagenbach makes the following observations—

1. That masturbation is an exciting cause of insanity,
2. That in a small percentage certain physical conditions are present, due to the vice, and may prove valuable aids in confirming a diagnosis.
3. That the general health of insane masturbators is always impaired.
4. That the diagnosis in the first stage usually is difficult, and comparatively easy in the second stage.
5. That the prognosis is always unfavorable, unless the practice is discontinued.
6. That daily exercise, carried to fatigue, is an important element in the successful treatment of these undoers.
7. That they are not benefited by removal to an asylum, if allowed to spend their time in idleness.
8. That certain medicines, by improving the general health and removing sexual desire, prove successful in some cases.
9. That cauterization of the prepuce, and physical restraints, as a rule, are impracticable or useless.—*Med. and Surg. Rep.*

THE NEW METHOD OF ANÆSTHESIA DURING SURGICAL OPERATIONS.

One of the most remarkable discoveries of the age is that attributed to Dr. Paul Bert, the Professor of Physiology at the Sorbonne, which consists of producing anæsthesia by a mixture composed of nitrous oxide or laughing gas and oxygen, which has already rendered signal service in the practice of surgery. Pure nitrous oxide has for a long time been employed for the minor operations in surgery, particularly for the extraction of teeth; but the period of anæsthesia is extremely short; and the asphyxia, though momentary, has sometimes been attended with fatal results. M. Paul Bert conceived the idea of preventing the asphyxia thus induced, preserving at the same time the anæsthetic properties of the nitrous oxide, by mixing it with oxygen, which he afterwards verified by experiment. He then came to the conclusion that, if anæsthesia were not

produced in this case, it was owing to the gas not having its normal tension, and to its not being absorbed in sufficient quantity. This led him to try the mixture in a chamber of compressed air, which he extemporized for the purpose; and the success of the experiment far exceeded his expectations. The following is the process, which was lately communicated to the Therapeutical Society of Paris by M. Limousin, a very enterprising physician. The gaseous mixture is effected in the proportion of 85 parts of nitrous oxide and 15 of oxygen; and generally it is administered under a pressure of 17 centimetres of mercury, which would represent, at the normal atmospheric pressure of 76, a total pressure of 93 centimetres. The tension of the nitrous oxide is, therefore, $\frac{85 \times 93}{75} = 105.4$; that of the oxygen is $\frac{15 \times 93}{75} = 18.6$: a proportion a little too strong for the former, and a little too weak for the latter. Nevertheless, anæsthesia was produced without asphyxia. The nitrous oxide is prepared from the nitrate of ammonia; and the oxygen is produced by decomposing, by the aid of heat, a mixture of chlorate of potash and the peroxide of manganese. The two gases are introduced into balloons of caoutchouc or vulcanised India-rubber, in the proportions indicated above; and the dose is regulated by a small gasometer similar to that employed by the Gas Company of Paris. The balloons are united by means of India-rubber and glass tubes in such a manner that the gas enters a small intermediate balloon, which serves as a regulator and is provided with two tubes. The mixture is then administered by means of the well-known apparatus invented by Clover. The quantity of gas expended amounts to about ten litres per minute; hence it would require a large supply for a long operation, which is a great drawback, as it involves the necessity of using balloons of some size, which would encumber the chamber of compressed air, the space in the interior of which is already rather limited. This drawback would render the application of the process most difficult in the great operation, as it would take up a great deal of space and necessitate the employment of a certain number of assistants. Yet, notwithstanding these inconveniences, the new anæsthetic process will doubtless be used when and wherever practicable; and Drs. Léon Labbé and Péan, the former of the Lariboisière Hospital, and the latter of St. Louis, have resumed their experiments at their respective hospitals, which were interrupted by the summer holidays. During the last half of October, M. Labbé performed eight operations under the new process, and with perfect success. The operations, which were varied in their character, were performed in the movable bell or chamber of compressed air organized by Dr. Fontaine for medical as well as for surgical purposes. One operation—removal of a cancerous breast—lasted sixty-four minutes, without any injurious influence on the patient; and this would lead to the hope that the larger operations—even ovariectomy—may also be performed without any danger. The following are the advantages of the new process: uniform dosage of the anæsthetic agent; suppression of the stage of excitement during the operation, and of vomiting after it; rapid return of sensibility; etc. MM. Labbé and Péan have arranged to avail themselves of Dr. Fontaine's movable *cloche*; the former on Tuesdays at the Lariboisière, and the latter on Thursdays at the St. Louis Hospital. Dr. Fontaine is the founder of the Aerotherapeutic establishment in the Rue Chateaudun.—*Paris Correspondent of Brit. Med. Jour.*

CHLORAL AS AN ANÆSTHETIC.

Although chloral is accepted as an anæsthetic by nearly general consent, there is far from being a general agreement as to the manner in which sensibility is abolished by its use. M. Arloing, in a paper on the subject recently submitted to the Académie des Sciences, thus states the present opinion on the question.

According to Liebreich, chloral produces anæsthesia by the chloroform it furnishes, by being broken up on contact with the alkalies of the blood. According to Byasson, Lessonde, etc., by the combined action of chloroform and the alkaline formiates which also result from this disintegration. Finally, Demarquay, Gubler, Claude Bernard, Vulpian, etc., are of opinion that chloral acts as chloral, and that its effects have nothing in common with those of chloroform. The three following questions are still unanswered: 1. Does chloral undergo decomposition in the animal economy, or does it not? 2. In the case of an affirmative answer, is this separation the condition necessary to the production of anæsthesia? 3. What are the respective parts appertaining to chloroform and to the alkaline formiates in the phenomena following absorption of chloral?

On these points, M. Arloing formulates the following opinions. It is especially in the name of chemistry that the partisans of disintegration have spoken, and M. Arloing has endeavored, by the help of the physiological reactions of the organism, to find if this separation exist; since those persons who refuse to accept it base their refusal on arguments drawn from the physiological effects of chloral. He chose as a reagent the circulation, a function which undergoes modification under the influence of the slightest causes, and of which it is possible to study the changes even to their smallest details; besides which, the special effects of chloral, chloroform, and formiate of soda on the circulation being known, he in a manner made the synthesis of chloral in the interior of the vessels, by injecting separately the quantity of chloroform and of alkaline formiate which would be furnished by an anæsthetic dose of chloral, and has registered all its effects, starting from the idea that, if he obtained by the experimental procedure all the modifications of the circulation which characterize the absorption of chloral, he would be in possession of the notion of separation of this body in the blood. M. Arloing notes in passing that, by injecting a solution of formiate of soda into the veins of an ass or a horse already chloroformed, the tracings of arterial and venous pressure, of the pulse and of the rate of the flow of the blood in the arteries, gradually assume the characteristics of the tracings of chloralazation. The disturbances of circulation produced by chloral present, then, the result of the modifications which belong to chloroform and to the alkaline formiates; and for this reason, he believes that the separation of chloral in the blood cannot be doubted. Likewise, if a small dose of chloral be injected into the veins of a dog, which has also received a somewhat large quantity of formiate of soda, two effects of the same tendency are combined, and the disturbances of circulation which belong to strong doses of chloral are obtained at once. M. Arloing is of opinion that disintegration is a phenomenon indispensable to the production of anæsthesia by chloral. This assertion is based on the following fact. It is known that the irritability of the sensitive plant is abolished by the vapors of chloroform. M. Arloing has shown, in a recent note, that the absorption of chloroform by the roots of this plant leads to the

same result, whilst the absorption of chloral kills the sensitive plant without modifying its excitability. Why, then, does not the anæsthetic action of chloral, so marked in the animal creation, persevere in a plant which is yet so sensitive to the action of chloroform and ether? M. Arloing believes that the cause of this difference is the fact that, reaction of the tissues of the sensitive plant being acid, chloral does not find in this plant the alkaline condition necessary for its disintegration; otherwise, M. Arloing cannot understand how chloral can lose its properties when the other anæsthetics retain theirs.

M. Arloing is of opinion that the anæsthetic effects of chloral are not due, as M. Byasson believes, to the combined action of nascent chloroform and formic acid, for the experiments which M. Arloing has undertaken, with an alkaline formiate, have convinced him that this salt does not diminish sensibility. He considers that chloralic anæsthesia is produced by chloroform. As to the alkaline formiates which become developed simultaneously, they contribute to the anæsthesia by their vaso-dilator action, by carrying the chloroform more rapidly and in greater abundance to the nerve-centres and the termination of the sensory nerves.

The adversaries of disintegration especially object that the slowness with which it is effected agrees but ill with the sudden appearance of anæsthesia after intravenous injections of chloral, and that the quantity of chloroform which would be derived from an anæsthetic dose of chloral would be incapable of producing deep and prolonged sleep. On reflecting that, in administration by inhalation, a large quantity of chloroform is dissipated in the air, whilst that which enters in the vessels is entirely utilized, this objection appears less striking. M. Arloing has also assured himself experimentally that the quantity of chloroform necessary to put an animal to sleep is always less than that which would be yielded by an anæsthetic dose of chloral. Thus, with from five to six *grammes* of highly diluted chloroform, slowly injected into the veins, M. Arloing has thoroughly anæsthetized large solipeds; to obtain this result with chloral, he was obliged to inject from thirty to forty *grammes*. The hydrate of chloral giving, then, 72.2 per cent. of chloroform, the quantity of chloral necessary to anæsthetize a horse would yield from twenty-two to thirty *grammes* of chloroform; that is to say, five times as much as in the free state, it would be necessary to inject to produce anæsthesia. If, also, the large quantity of chloroform which results from the disintegration of an anæsthetic dose of chloral and the necessary slowness of this operation be taken into account, both the almost overwhelming onset and the long duration of the sleep in subjects which have had intravenous injections of chloral, can be understood. M. Arloing, therefore, concludes that chloral becomes decomposed into chloroform and alkaline formiates in the blood of animals, that the anæsthetic effects of chloral are due to chloroform, that the alkaline formiates favor their production mechanically by increasing the quickness of the circulation, and by thus facilitating the impregnation of the nerve-elements with the anæsthetic agent.

—*Brit. Med. Jour.*

The publication of this number of the "GAZETTE" has been delayed in consequence of the change in the type. The next number will also be a couple of days behind time, but thereafter the journal will appear with punctuality.

CORRESPONDENCE.

CAT-GUT LIGATURES—ETHER AND THE ACTUAL CAUTERY.

To the Editor of THE MEDICAL GAZETTE.

DEAR SIR: Permit comments on two selected articles in your issue of Dec. 20th. First, as to cat-gut as a carrier of infection. A few weeks ago I removed a patch of lupus from the eyelid of a young lady. Five sutures were necessary, two of which were carbolized cat-gut and three silk. No suppuration about the silk, but suppuration about both and a small slough around one of the cat-guts. These latter had been bought some months before, but the bottle containing them had not been opened until the time of the operation.

Quite a number of instances in this city have come to my knowledge in which the ether has caught fire from both the galvanic and the thermo-cautery. I have used both forms of cautery hundreds of times and have not yet met with the accident referred to, probably owing to the fact that I never (or hardly ever) employ ether as an anæsthetic when a cautery operation is required. But instead, use chloroform, nitrous oxide or nothing. For short operations (e. g. lupus, chancroids, etc.) usually the latter.

The suggestion that the temperature should not be allowed to exceed a red heat is absurd. For some purposes a red heat is best, for others a white heat, and again for others a black heat. Different degrees of heat produce different effects, and it is as important to regulate the dose of heat and adapt it to the particular indications to be fulfilled, as it is to regulate the dose of any medicine that we may wish to administer. No one would expect the same effects from thirty grains, one grain, or 1-30 grain of calomel. Yet each of these doses may be appropriate and useful under certain conditions. The same is true of every other remedial agent. Different effects from different doses—and the actual cautery is not an exception to the rule. I don't know with whom originated the brilliant idea of employing local anæsthesia (with ether) just before the cautery is applied, but I have heard that a distinguished physician relates the following personal experience: Desiring to cauterize a patient's spine, he applied the ether in spray until he deemed the part sufficiently frozen. He then applied the cautery. The ether took fire and scorched some of the patient's hair. When asked how the patient liked it he replied that the patient supposed it was all right, and "a part of the regular pyrotechnics." I would not have alluded to this except that I recently saw the method recommended in print by some one else.

It appears to me an extremely unphilosophical procedure, because the cautery will not cauterize until the frozen part is thawed out, and then it hurts just as much, or ought to, (I have never tried it) as if the part had not been frozen.

Respectfully yours,
H. G. P.

COMMUNICATIONS BETWEEN THE AORTA AND PULMONARY ARTERY.

To the Editor of THE MEDICAL GAZETTE.

DEAR SIR: In vol. 1, pp. 128 to 137, of the Transactions of the New York Pathological Society, your readers will find four cases of the above disease, one reported by Dr. Geo. J. Elliott, a second by Dr. Terry, the third by Dr. Wm. M. Chamberlain, and the fourth by Dr. J. C. Peters. Virchow and Roki-

tsky have rarely observed the disease. Dr. John A. Swett, the first president of the New York Pathological Society, had never seen a case; Hope had seen one case; Dr. Fletcher, another; Payen and Jenks had each seen one case; Wilks, one; the elder Monroe, one; David Monroe, one; Stokes refers to it; Thurman has published a memoir on the subject; Professor Nathan Smith has reported a case; J. K. L. has reported one case; and Dr. Francis Delafield also refers to the matter. This is all the literature upon the subject that is easily obtained; and 20 cases in all will probably cover all that has been reported.

Your obedient servant,
J. C. PETERS.

PROPRIETORSHIP AND REPETITION OF PRESCRIPTIONS.

To the Editor of THE MEDICAL GAZETTE.

DEAR SIR: A prescription given and paid for by the patient is absolutely his property as much as his hat or his coat. He can give it away or lend it to a friend just as he pleases. The apothecary may retain a copy, but he cannot justly retain the original, which is the property of the one who has paid for it. In England the original prescription is always returned to the patient as his property. The apothecary can and will reduplicate as often as the owner pleases, or from his copy as often as he pleases. There is no law or just rule to prevent this; except comity among patients, apothecaries and physicians; and patients and apothecaries will live off the doctors. Some physicians, like the homœopaths, or the late Dr. Bumstead, may prefer to dispense their own medicines and avoid giving prescriptions. They are entitled to do this, just as country practitioners must or may dispense their own medicines, and many a weary trip to the apothecary in stormy weather, or late at night may be saved the patient's friends, if the doctor will carry and dispense the most important at least of the most frequently used medicines.

Younger physicians, and those who are struggling to gain a practice may well join themselves into Provident Dispensary Associations, under the advice and control of the Medical Society of the County of New York, or of the Academy of Medicine. If they will keep clear of quackery and submit their plans and operations to the ruling authorities in the profession they will prove the most powerful antagonists to the advertising quacks who fleece the public, and to apothecaries who give second hand advice, at the cost of the medicines supplied, to all who apply.

PHARMACOPŒIA.

OBITUARY.

DR. ROBERT C. CONE.

Dr. Robert C. Cone died at his residence, No. 120 East Tenth street, on Dec. 19th, after a brief illness. He was born at Colchester, Conn., April 12, 1811, while his father, Rev. Jonathan Cone, was a Presbyterian minister of that place. The family subsequently moved to Durham, Greene county, N. Y. The deceased, then a youth, attended lectures at Yale College, but subsequently pursued his medical studies at the Philadelphia Medical School, where he graduated. Shortly after receiving his diploma he settled at Durham, where he practised for nine years; then moved to Lowville, Lewis county, where he continued his professional work the succeeding sixteen years. While there his health failed him, and in 1865 he came to this city, where he had since resided, but not in active practice.

MEDICAL NEWS AND NOTES.

An Interesting Case From the New York Hospital.

Dr. F. H. Hamilton, of the New York Hospital, reports the following case: A woman, aged 35, was brought to the hospital on the 10th inst. She had been ill for several days, and was found by her neighbors in a state of unconsciousness. She was brought to the hospital, and on examination, first externally, and then with

missed them, and from the feeling in her throat she imagined she had swallowed them during the night. She indicated a spot, low

down the throat, and then with examination, first externally, and then with

that if she had swallowed the teeth they had not lodged in the throat, but had passed into the stomach. The examination had discovered, however, a large goitre. In answer to questions the woman said that for several weeks she had frequently experienced difficulty in breathing. The doctor had but little difficulty in assuring her that the tumor was the cause that had led her to believe she had swallowed the teeth, and that she would probably find the latter, as many other persons under similar circumstances had done.

She was so completely relieved of any unpleasant feeling that Dr. Fisher remarked aside to a professional visitor upon the mental effect of the examination. The woman gave her name as Mrs. Cora S. Nourse, of 36 West Ninth street, but explained that she had just come into town for the purpose of being treated for her imaginary difficulty.

She was brought to the hospital half an hour after midnight. Dr. F. H. Hamilton called on her, and found her in a state of unconsciousness. He found a very bad case. He found Mrs. Nourse lying upon a cot gasping for breath. He at once suspected that the goitre was responsible for her being in that condition. Before he could attempt an operation she died. He had not been in the room thirty seconds. She was brought to the hospital by some gentleman who had seen her fall at the corner of Fifteenth street and Union square.

In preparing the body for an autopsy, the four teeth, on a gold plate, were found in her corage. The autopsy showed the magnitude of the goitre, which was very large. The lungs were congested, indicating death from suffocation. The physicians were of the opinion that, while death might have resulted from fright or pressure upon the laryngeal nerves, causing spasm of the vocal cords and impeding respiration, that it was more probably caused by the direct pressure of the goitre upon the windpipe.

The Coroners' office was notified, and the verdict of the inquest was that death resulted from asphyxia caused by the tumor pressing upon the windpipe.

Sanitary Condition of the Newburgh, N. Y., Jail.

The jail is in the basement of the Court House, below the level of the ground. The cells are all very small, except the dark cell. The cells are very damp, and if a stove was not kept burning summer and winter no person could live in them any length of time. The ventilation is very defective, and the cells are so dark that gas is burned day and night. The water closets adjoin the cells, and continually emit an offensive odor. The want of room to separate the sexes is probably the worst feature of the dungeon. Women whose moral training has

been good but who by some slight offense against the law are locked up, are put into these cells adjoining those occupied by disreputable persons. Words uttered in one end of the row of cells can be distinctly heard in the other end, and unfortunates who are not of the degraded sort are obliged to listen to the most depraved talk that hardened criminals are capable of uttering. The dark cell is about 16x20 feet, and the sheriff says he that he has been compelled at times to put as many as fifteen prisoners in this cell at one time. There is only one light in this cell which measures 15x20 inches, and this is the only means of ventilation in the cell.

The Alienist and Neurologist. A quarterly journal of scientific, clinical, and forensic psychiatry and neurology, intended especially to convey the wants of the general practitioner of medicine, is to make its appearance this month. It will be conducted by Dr. C. H. Hughes of St. Louis.

Infringement of Copyright.—Dr. William A. Hammond and Dr. Appleton & Co. have begun suit against Dr. Allan McLane Hamilton and Henry C. Lea, for an infringement of the copyright of the work on Diseases of the Nervous System, written and published by the first named gentleman. The defendants will file their answer in the U. S. Circuit Court in this city on Monday next, January 5th. As it is a matter of considerable interest to the profession, we shall keep our readers informed of the progress of the trial, and in the meantime withhold any comment.

A Practitioner Accused of Murder.—A Dr. Wilson, formerly of Buffalo, N. Y., but late of Detroit, Mich., has been jointly indicted with a Mrs. Hotchkiss, of Lockport, N. Y., for the poisoning of the latter's husband, about eight years ago. They have both been admitted to bail in the sum of \$10,000 each by Judge Haight, of the Supreme Court.

Diseased Meat in Washington Market.—The Health authorities have lately made a raid upon the butchers in Washington Market, and seized several tons of diseased meat and fish. Their attention was called to the matter and the meat seized at the request of Mayor Cooper.

A Druggist's Shortsightedness.—George F. Simpson, pharmacist, of 361 Broad street, Newark, N. J., took from a shelf in the store a glass jar that he supposed was clean, and carried oysters home in it. He and his wife ate the oysters, and at 2 o'clock the following morning they awoke in great pain. Dr. Robison was called, and he found that the glass jar had contained tincture of aconite. The patients recovered.

Killed by a Meteor.—The death of David Meisenthaler is reported from Nemaha county, Kansas, as follows: It took place on the morning of December 12, about eight o'clock, and the sky at that time was perfectly clear. It was very cold, and Meisenthaler had gone from his house to a pasture about five hundred yards distant to drive up some cattle. He was walking toward the barn on his return, and while standing about twenty feet from the trunk of a maple tree was killed. The aerolite which caused his death came from an easterly direction, and first struck the tree trunk, which caused it to glance slightly, and in its flight

it cut the upper branches of the maple and entered Meisenthaler's body from below the right shoulder, coming out at the left hip and then partially burying itself in the frozen ground. Its course was undoubtedly changed by contact with the tree, as could be seen by the manner in which the latter was splintered.

The deadly missile is said to be about as large as an ordinary man's head and egg-shaped and rough, as if taken from a hot furnace and cooled in its flight through space. It resembled in appearance iron taken from a blast furnace and cooled by rolling in sand, and is composed of iron pyrites. It was perfectly cool when discovered, about half an hour after its fall, and lay not more than two feet below the surface of the ground.

Conviction of an Abortionist.—A "Dr." Fayen, of 79 Seventh street, has been convicted of malpractice, he having produced an abortion in the case of a young woman in Brooklyn. The felon was practicing on the strength of possessing a diploma which he had purchased for \$30 from some western institution. Dr. R. A. Gunn, the dean of the United States Medical College (a mixture of homœopaths and eclectics) testified that "Dr." Fayen's treatment was proper, but his testimony evidently had no weight with the jury.

Cremation seems to be growing in favor: Mr. Funch, a well-known merchant of this city, has ordered that his body be taken to Milan and cremated, and Mr. Chas. A. McCreery's body was lately consumed in the furnace at Washington, Pa., at his request. We think the profession should encourage this method of disposal.

The Fœtal Walrus.—At the last meeting of the Philadelphia Academy of Natural Sciences, Dr. Harrison Allen described a fœtal walrus which had been presented to the Academy some years ago by I. I. Hayes, who had brought it from the Arctic regions of eastern North America. The specimen is nearly three inches long, of a waxy white color, without the straightest trace of hair, and is nearly straight. The latter characteristic distinguishes it at once from the embryos of other carnivora. There is neither flexure of the head upon the trunk or the trunk upon itself. The limbs are closely folded upon the body. The muzzle exhibits the future position of the bristle by six rows of minute papillæ. The specimen is said to be unique.

Anomalies in Cerebral Anatomy.—At the last meeting of the Philadelphia Acad. of Nat. Science, Dr. A. J. Parker stated that Dr. Mills had lately found, while examining the brain of a white person, that the central fissure ran completely into the sylvian fissure without any bridging convolution. This was the third record of such an occurrence, and had an important bearing upon the morphology of the convolutions. Bischoff's theory regarding the arrangement of the fissures and convolutions was criticised in this connection, and the opinion was expressed that the fissure of Rolando must be assigned to position with the frontals.

Swallowing a Fatal Dose by Mistake.—Mrs. William C. Harp, of Hoboken, N. J., died at her residence on Garden street on the 18th ult., from the effects of a dose of ammonia, which she took by mistake for cough medicine. For several days before her death her throat was so inflamed that she could eat nothing.

LECTURES.

THE INITIAL LESION OF SYPHILIS.

A Clinical Lecture delivered at Charity Hospital,

BY

F. R. STURGIS, M.D.

Clinical Lecturer in Venereal Diseases, in the Medical Department of the University of New York, at St. John's Charity Hospital, Department of Skin and Venereal Diseases.

(Reported for THE MEDICAL GAZETTE and REPRODUCED BY THE EDITOR.)

GENTLEMEN.—There are local lesions upon the most important venereal disease, which can affect mankind, important not only from its effects upon the original bearer of the disease but also from the horrible consequences which may be entailed upon the offspring of the syphilitic person, and in dealing with syphilis I shall try to give you as clearly and practically as I can the chief points of the disease, and in what its first symptom, the initial lesion, differs from the chancreoid.

In the first place, let me explain why I abandon the name chancre. First, because it is *confusing*, and secondly because it means nothing. The French, English and most American writers call the syphilitic sore chancre and the local venereal sore the chancreoid, but the Germans expunge the word chancreoid from their vocabulary, calling that lesion chancre, and our chancre the initial lesion of syphilis, and this multiplying of names is confusing. Chancre, originally derived from cancer, means "something which eats." Now the initial lesion does not do this, and it does not necessarily mean anything syphilitic; but to say *initial lesion of syphilis* means that it is the first symptom of syphilis.

And bear this well in mind, it is syphilis already; no local lesion, as was the chancreoid, but the first symptom of a disease which is always serious, sometimes grave, in its results, and connected with other symptoms which do not appear for some weeks after. I shall therefore call the *first symptom of syphilis the initial lesion*, and entirely abandon the word chancre.

The first case I have to present is of interest in several ways, and before commenting at length upon it let me give you a few points in the history: The patient, a stout, well built young fellow, 24 years of age, was admitted to the hospital, November 7, 1879. He says he has had gonorrhoea and chancreoid several times, but you observe syphilis is not included in the category. A very noteworthy omission. Very rarely indeed does a patient contract syphilis more than once in a lifetime; chancreoid and clap can be caught *ad libitum*. But to go on with the history: on the 9th of August, 1879, he contracted the present sore, 13 days, he declares, after the connection. Here let us pause; 13 days *after coitus the sore breaks out*. You remember what we found to be the case in studying the chancreoid, "the sore came on two or three days after coitus," here it is thirteen, four to six times longer. Deduce then this axiom, the initial lesion of syphilis is endowed with a period of incubation which is denied to the chancreoid. But there is something still more interesting in this thirteen days incubation. As a rule the incubative stage of the initial lesion is longer, on an average 21 days, but this period is variable. If then, we reckon 21 days as the average in such cases, 13 days, the present stage of incubation is shorter than the usual time, although not the shortest

recognized are maximum 98 days, minimum 10, and although these represent extreme cases, bear the possibility of their occurrence in mind in making your diagnosis. To formulate the matter in a few words,

after coitus.

The history goes on to say that "it (the sore) commenced on the under surface and on the right side of the prepuce, and the sore-ness, swelling and induration came on within four days. At present he has an induration extending all over his prepuce."

The induration, which is very perceptible, is under the finger of a hard, resilient character, entirely distinct and separated from the surrounding tissues, and is seated upon a non-inflammatory base. Contrast this with what we found in the chancreoid. In the latter the tissues were soft and supple; there was *no induration*, and the ulcer was angry looking; inflamed, in other words. In the initial lesion under observation, the ulcer, if indeed we can call it an ulcer, is very *superficial*, it looks more like an *erosion*, the floor is *clean and red in hue, the edges sloping and not undermined*.

Another point of interest is the fact that this variety of venereal ulcer does *not* have any tendency to *spread nor to eat* into the tissues as does the chancreoid; indeed its whole course is *cold and slow*, and shows nine times in ten a *greater inclination to heal up than to extend*, another point of difference between it and the chancreoid, where we found the opposite attributes.

Besides this we observe the *singleness* of the lesion and the *scantiness of the secretion*, as noteworthy conditions of difference between the two varieties of ulcer. With regard to the singleness of the lesion you remember we found in chancreoids that *multiplicity was not exceptional*, and that this was brought about in two ways, either as *independent foci of infection*, or by *auto-inoculation*, but in the *initial lesion of syphilis multiple sores are the exception rather than the rule, and when they occur it is an independent force of infection, never from auto-inoculation. Bear in mind then that the secretions of syphilis cannot be inoculated as syphilis upon a syphilitic person.*

The nature of the secretion is also deserving of a few words; it is *thin and scanty, not abundant, and purulent*, as we find it in chancreoids, and unless the ulcer is irritated from any cause whatever, *never becomes purulent*.

I wish now to call your attention particularly to the *induration*, for this is a very important point, and one upon which too much stress cannot be laid. Whenever this symptom is found, *clearly and well marked*, it is of *value* as stamping the lesion with a character. But there are many cases in which the induration is *very thin and slight* (parchment induration); nay more, where the *induration is entirely wanting*. Yet the sore has not changed its nature; it is still *syphilis*, and will be followed by *secondary symptoms* as certainly as is the hard variety. This is why I urged you, when speaking of the chancreoid, to abandon the use of the word "soft," for if you regard the soft sore as the one which is *par excellence* local, and does not infect the constitution, what are you going to say of the sore which does contaminate, or to be more strict, which is the first symptom of systematic contamination, and which is still soft? Pray what does the name tell you? Nothing; but chancreoid and initial lesion do mean something; they tell you that the first is a local disease, the second a constitutional one.

The term "hard sore" is also objectionable, because the hard sore means syphilis in contradistinction to the "soft sore," which

are syphilis. No! I think the names I give you are the best; if you know better ones adopt them, if not use these with me.

The initial lesion of syphilis is usually indurated; when present, this is of great value, but its absence, which sometimes is the case, does not detract from the lesion; it still remains syphilis. When the induration is absent, the lesion is to be made from other characteristics.

We will now pass on to study the condition of the glands in the commencing stage of syphilis, and here we shall find many points of difference between the initial lesion and the chancreoid.

To go back a little; you remember in studying the chancreoid we found that the inguinal glands were thickened and brawny, confounded, so to speak, with the surrounding tissues, in such a manner as to make a doughy mass, which showed moreover decided inflammation. Turn to the cases before us, and what do we find? The glands in the groin are enlarged, it is true, but they are perfectly distinct from one another; they roll about under the skin freely and easily. When handled they are not fused together, nor with circumjacent tissue, as is the case with the chancreoid, and they are painless.

Could anything be more opposite than these two kinds of bubo; yet this is not all. Syphilitic buboes *rarely suppurate*; when they do it is from some other cause than the syphilis, generally from debility or an enfeebled constitution, and the pus they furnish is *laudable and incapable of conveying the disease either to the bearer of the lesion or to others*; in other words, they are simple abscesses such as you are liable to meet with in any person who is run down in health. Neither are they dependent upon the site of the initial lesion, but are met with on both sides of the body and are due to the systemic poisoning which has occurred, to the same cause which has produced the initial lesion itself and *not to absorption of matter from the ulcer*.

When I come to speak of the subsequent syphilitic symptoms, I shall show you how the glands over the body are similarly enlarged, what is called the *adenitis universalis syphilitica*.

Of the initial lesion of syphilis, there are several varieties; the archetype, sometimes called the Hunterian induration, you have already seen; you can tell it as far as you can see it, and it is unmistakeable, but unfortunately it is not always present. Sometimes the *initial lesion* has but a thin disc-like layer of induration beneath it which gives to the touch the feeling as though a slight layer of parchment were beneath the skin or mucous membrane, the "parchment induration" which I have already brought to your notice, and again, very rarely, it is true, there may be no induration at all. The ulceration in the initial lesion is very superficial indeed, and when seated upon a markedly indurated base is raised above the surrounding tissue; it is then known as the *ulcus elevatum* and again it may be a mere erosion which, conjoined with little or no induration, is very puzzling and apt to mislead the surgeon as to its true character. Beware of such; do not be in a hurry to pronounce positively on the nature of any such lesion, but suspend judgment, else you may make an awkward mistake by calling a given lesion innocent, which a few weeks later will be followed by a general outbreak upon the skin and mucous membranes. In addition the initial lesion has no destructive tendency, no undermined edges, no gray floor; on the contrary, it has a red granulating appearance, with oftentimes a

dark spot in the centre and is prone to bleed readily upon touching.

In those cases where the initial lesion itself gives little or no information, appeal to the glands of glands nearest to the lesion. You will find them intact and their induration will often help you to a diagnosis.

Let me, before going further, make in a table the comparison between the initial lesion and the chancreoid.

INITIAL LESION.	CHANCROID.
Time of a period of incubation.	Described period of incubation.
Lesion, with few days to appear.	Not destructive, tends to heal rapidly.
Edges undermined.	Edges rising, not undermined.
Contents, infective secretion.	Serous, serous secretion.
Contents, and an inoculable character of the pus.	Secretion not auto-inoculable.
Usually multiple.	Usually single.
Not seated upon an indurated base.	Generally indurated; sometimes, rarely however, not.
Glands, after the inflammation, when so, they are not a chancreoid furnishing inoculable pus.	Glands indurated not inflamed, very rarely suppurate, and then from causes apart from syphilis. Never furnish inoculable pus.

This gives you at a glance the important points of difference between the two ulcers.

The site of the initial lesion is a point of much interest and I wish to recall to your minds what I said in an earlier lecture about some forms of venereal diseases being transmitted without sexual contact. This is the case in syphilis, the initial lesion not infrequently being met with upon the lips, the cheek, or upon the nipple; in the first two cases from kissing or from using contaminated utensils, a pipe, a spoon or drinking vessels, and in the latter from suckling a syphilitic child. Other places are the fingers, the nose, the tongue, the throat, and the palpebral conjunctiva of the eye, in short, lay it down as an axiom, that no portion of the body is exempt from being the seat of the initial lesion, although the genitals are the usual seat and naturally so from being more exposed.

The source of infection is another point to which I invite your attention. A chancreoid, as I have already explained to you, comes from a chancreoid or a chancreoid bubo, but syphilis is caused in other ways than from inoculation of the secretion of an initial lesion. The secretion from mucous patches, whether of skin or mucous membranes, as well as the blood of a syphilitic, during the first 12 months at least of the disease is capable of infecting a sound person, but as I have already told you it is not auto-inoculable. The tears, saliva and sweat are innocuous, and until within a few years human milk was included in this category, but some recent experiments have made this doubtful, although the reported cases are by no means convincing. It is the contagious property of blood and mucous patches which cause many of the cases of initial lesion of the lips, cheeks and nipple; the patient not being aware of the danger, kisses healthy persons who perhaps have an abrasion of the lips and the disease is lighted up in them. As regards the nipples the mucous patches of the baby's mouth perform the same office for the nurse.

Suppose the infection to be derived in one case from the secretion of an initial lesion, in a second from that of a mucous patch and in a third from syphilitic blood; how does the disease begin in these cases. Always by an initial lesion seated at the point where the virus gained entrance, never in any other way. Syphilis does not first make its appearance in the form of a so-called secondary eruption without a preceding initial lesion, although there are some cases where this

would seem to be so. These cases are when the initial lesion is seated in some unusual or not readily accessible place, as for example in the urethra of the male, in the cervix uteri, upon the lips or fingers of both sexes. When it is seated in the urethra, palpation often reveals the remaining induration, and sometimes separation of the labia urethrae reveals the syphilitic erosion, and a slight gleet-like discharge is also present.

Another cause of confusion when the patient has not come under observation until after the outbreak of general symptoms is that the initial lesion becomes changed into a mucous patch, a symptom of the so-called secondary stage, but even here the traces of the induration will put you upon your guard as to the real nature of this supposed mucous patch.

The initial lesion is also subject to complications, though to a less extent than the chancreoid, the principal ones being phimosis and phagedena. When phimosis attacks the initial lesion it is not so likely to produce such serious consequences as when it occurs with the chancreoid, owing to the inflammation being much less and also to the fact that the initial lesion does not ulcerate. The only danger to be apprehended from this complication is gangrene, and that may be so readily and easily obviated by an incision as to practically rob it of one-half its danger. You note that I said "easily obviated by an incision" and I wish you here to remember what was said in regard to this complication when speaking of the chancreoid. Then I advised you not to cut unless obliged to, because the edges of the wound would become chancreoid, but in the initial lesion no such danger is to be apprehended; the secretion of the lesion and the blood of the syphilitic are incapable of being auto-inoculated. You may therefore operate if you see fit at once, so far as contagion is concerned, but I should advise waiting a little for the following reasons: First, because no operation should be done if the same result can be attained in any other way; and secondly, because the induration, even if very thick and marked, will disappear under proper treatment and with it the phimosis. But should gangrene threaten then you not only may, but should operate to avert this threatened evil and you may practice the single or the double incision already advised in lecture 3.

Phagedena in syphilis is of as grave import as in chancreoid, and comes from the same cause, viz.: Constitutional defects, due to alcoholic abuse or to a morbid diathesis, and it plays an important part as regards prognosis. The ulceration, instead of being superficial, then becomes deep and widespread, the floor is gray and pultaceous, the secretion more abundant, and the induration may entirely melt away under the phagedenic action. Where the initial lesion is phagedenic the subsequent lesions are apt to take on ulceration, and to pursue a rapid course, being rebellious to treatment, and exposing the patient to grave and serious consequences.

Before going on to speak of treatment, let me say a few words about what is generally called the "mixed sore." I wish the term could be abandoned, as it is confusing and does not convey a correct idea of the facts. It is really a double sore; there is no mixture whatever of nature, course or virus: it is simply where inoculation of a chancreoid and syphilis occur in the same person. The two poisons being received at the same coitus, they operate differently as regards the time of their appearance. The chancreoid appears first; remember it has no period of incubation, and runs its course and perhaps gets well before the initial lesion comes upon the

stage. At a later period, varying from 10 to 24 days after the infecting coitus, the initial lesion appears, marked by its peculiar characteristics. It sometimes happens that the chancreoid has not healed before the first symptom of syphilis is due. This, then, is what happens: the chancreoid becomes surrounded with a ring of induration, the secretion is less copious, the floor fills up and becomes redder and healthier in look; the chancreoid has in other words become changed into an initial lesion, and the nearest chain of glands are indurated. But through the whole performance there is no interchange of characteristics, the two lesions remain entirely distinct, and "mixed chancre" is to my mind a misnomer: I prefer to call it a double infection, double in the sense that two kinds of virus have been deposited in the same spot.

It is in these cases of double infection that you will be most likely to meet with a suppurating bubo, the pus of which is auto-inoculable, and which, unless you are forewarned, may lead you to believe that syphilis is attended with a suppurating, auto-inoculable bubo. The bubo is chancreoid, similar to what we have already studied, has nothing to do with the syphilis, although it is contemporaneous with the initial lesion, and will require the treatment appropriate to the chancreoid bubo.

As regards treatment it is simple, and so far as the local trouble is concerned, effective in the majority of cases. In the first place let me beg of you *never to cauterize an initial lesion unless it should be attacked by phagedena*. I know it is the rule to cauterize every suspicious looking ulcer, but in the case of the initial lesion it not only does harm in irritating an otherwise simple ulceration, but it retards its healing. Dress the lesion simply; sometimes a piece of lint laid over the ulceration or erosion will suffice, but at other times a little more active treatment may be requisite. Of all dressings I much prefer the dry, and of them iodoform heads the list, either alone or in combination with other drugs. Thus—

R	Iodoform pulv.	
or	Lycopodii "	p.æ.
R	Pulv. Zinc. Ox.	2 parts.
	" Iodoformi,	1 part.
or	Pulv. Hy. Chlor. Mit.	1 part.
	" Iodoformi,	2 parts.

Calomel without anything else may also be used with advantage.

A mode much practiced in the German hospitals is to apply a piece of the Emplastrum de Vigo cum Mercurio, the size of the ulcer directly upon the sore, and leave it thus protected from the air, until the ulcer heals up. The Emplas. Hydrargyri, U.S.P., will answer as well.

If you prefer to use a wet dressing a weak solution of carbolic acid is the best. of which the following may serve as an example:

R	Cryst. Ac. Carbol.	gr. ii.
M.	Aquæ,	3 iv.

Apply on lint or cotton thrice daily.

Constitutional treatment whether internal or external is better not employed, save in exceptional cases, until the subsequent (secondary) symptoms appear, because in many cases it is impossible to diagnosticate the nature of the lesion under observation, and inasmuch as mercury when given during the existence of the initial lesion has a tendency to retard the outbreak of the secondary symptoms, it leaves the surgeon in doubt as to what the disease really is and unable to tell

his patient what or what not to expect. Delaying until secondary lesions come on or until the period at which they should appear has passed does not injure the patient's prospects of recovery, and it does give the surgeon the opportunity of informing his patient as to the nature of his disease.

There are cases where it is necessary to cure the initial lesion rapidly, as for instance in married people, and to retard, and as far as possible check the subsequent manifestations; but in such cases the patient should be told that by so doing the surgeon will be unable to tell him or her what subsequent symptoms to expect, or to count upon probable recovery, even after many months of treatment.

These exceptions do not then conflict with this general law, viz.: do not treat the initial lesion by the internal use of mercury, but await the development of secondary symptoms.

Internal treatment by tonics, iron, quinine and the like are admissible in this stage, should the patient be anæmic, a very frequent condition in this disease.

FRACUTRE OF THE NECK OF THE FEMUR.

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(Reported for THE MEDICAL GAZETTE and Revised by the Lecturer.)

GENTLEMEN: To-day I am going to talk to you about *Fracture of the neck of the Femur*. And at the outset let me remind you that it is impossible to have clear ideas in regard to the abnormal conditions of the neck of the femur without having clear ideas of the structure and function of the neck of the femur.

Now in regard to the structure and function of the neck of the femur there are three lines of inquiry.

1. What are conformation and length of the neck of the femur?

2. What is the internal structure of the neck of the femur?

3. What are the functions of the neck of the femur?

Let us take up the first line of inquiry, namely, what are the conformation and length of the neck of the femur?

(a) In early life the neck of the femur deviates from the long axis of the shaft of the femur in a gentle curve. So that the axis of the neck and the axis of the shaft of the femur meet at a very obtuse angle.

(b) In adult life the axis of the neck of the femur meets the long axis of the shaft at an angle of about 130 degrees. This conclusion is derived from measurements of 24 femora, the average length of whose necks will be mentioned in a few minutes.

(c) In old age the axis of the neck of the femur meets the long axis of the shaft at nearly a right angle.

This conclusion is derived from an examination of femora of old people.

REMARKS: The neck of the femur seems to deviate more and more from the shaft from infancy to old age. Sometimes at 45 and 50 years of age the neck and the shaft of the femur may meet at right angles.

It is important for us to have some way of defining the neck of the femur. What are its limits? Does not the head of the femur rest upon the *top* of the neck? Does not the base of the neck of the femur rest against the trochanters.

(1) The top of the neck of the femur then is limited by the somewhat irregular line which separates it from the base of the head.

(2) And the base of the neck of the femur is limited by the inter-trochanteric ridges and the lines which join the ends of these ridges above and below: the line above running through the digital fossa and excluding the great trochanter.

Two facts are to be noted in this connection, namely:

(i) Vertically the diameter of the base of the neck of the femur is nearly twice as great as the diameter of the top of the neck of the femur.

(ii) In an antero-posterior direction, the diameter of the top of the neck of the femur is greater than the diameter of the base of the femur.

In order to determine approximately the length of the neck of the full grown femur, I have taken twenty-four femora at random, and measured their necks on the anterior and posterior sides,—and have also measured the length of the heads of these femora: These measurements are recorded in the following table:

No.	Anterior Side.	Posterior Side.	Head.	Head & Neck.
1	1 1/4 in.	1 1/4 in.	1 in.	2 1/4 inches.
2	1 2/4 "	1 1/4 "	1 1/4 "	2 3/4 "
3	1 2/4 "	1 4 "	1 1/4 "	2 3/4 "
4	1 1/4 "	2 "	1 1/4 "	2 1/4 "
5	1 1/4 "	2 "	1 1/4 "	2 3/4 "
6	1 1/4 "	1 2/4 "	1 1/4 "	2 2/4 "
7	1 1/4 "	2 "	1 1/4 "	2 3/4 "
8	1 1/4 "	1 1/4 "	1 "	2 2/4 "
9	1 1/4 "	1 2/4 "	1 1/4 "	2 3/4 "
10	1 1/4 "	1 1/4 "	1 "	2 2/4 "
11	1 1/4 "	1 2/4 "	1 "	2 3/4 "
12	1 2/4 "	1 1/4 "	1 "	2 3/4 "
13	1 1/4 "	1 1/4 "	1 "	2 2/4 "
14	1 "	1 2/4 "	1 "	2 1/4 "
15	1 "	1 2/4 "	1 "	2 1/4 "
16	1 1/4 "	2 "	1 1/4 "	2 3/4 "
17	1 "	1 1/4 "	1 "	2 1/4 "
18	1 1/4 "	1 2/4 "	1 "	2 3/4 "
19	1 1/4 "	1 1/4 "	1 1/4 "	2 2/4 "
20	1 1/4 "	1 1/4 "	1 1/4 "	2 2/4 "
21	1 "	1 2/4 "	1 1/4 "	2 2/4 "
22	1 1/4 "	1 2/4 "	1 1/4 "	2 3/4 "
23	1 1/4 "	1 2/4 "	1 1/4 "	2 3/4 "
24	1 1/4 "	1 1/4 "	1 1/4 "	2 3/4 "

It is proper to add that the lines of measurement of the femoral necks were taken about midway between the upper and lower limits of each neck. And I have used the expression *inter-trochanteric ridge*, instead of the ordinary one, "*intertrochanteric line*," because it seems to be more exact in point of fact.

From the above table may be drawn the following conclusions, namely:

1. The average length of the anterior side of the neck of 24 femora was 1.2 inches.

2. The average length of the posterior side of the neck of 24 femora was 1.6 inches.

3. The average length of the necks of 24 femora was 1.4 inches.

4. The average length of the heads of 24 femora was about 1.2 inches.

5. The average length of the heads and necks of 24 femora was about 2.6 inches.

6. The posterior side of the necks of 24 femora was 4-10ths of an inch longer than the anterior side of the necks of the same 24 femora.

It must be kept in mind that the under side of the neck of the femur is longer than the upper side. The upper side of the neck of the femur is often less than an inch in length. The plane of the base of the head and the plane of the base of the neck of the femur will meet at a short distance above the top of the great trochanter.

In many specimens of the femora examined the following fact was observed:

At the base of the head of the femur posteriorly a point could be found that would be the center of a circle of which the posterior intertrochanteric ridge would be an arc, extending from the top of the trochanter

major to the apex of the trochanter minor. In this place let us put two facts side by side, namely:

(1) The posterior surface of the neck of the femur is longer than the anterior surface of the neck of the femur.

(2) The posterior surface of the neck of the femur is longer than the capsular ligament behind the neck of the femur.

Hence, some of the posterior surface of the neck of the femur cannot be embraced by the capsular ligament.

The following points in regard to the insertion of the capsular ligament of the hip-joint may be obtained from the investigations of Dr. Geo. K. Smith, namely:

1. The line of insertion of the capsular ligament of the hip-joint is not the same in different individuals. The capsule may cover more of the femoral neck in one individual than in another.

2. In front of the femoral neck the capsule is often limited near the base of the spinal ridge.

3. Behind the femoral neck the capsule is often limited near the middle of the posterior surface of the neck of the femur.

4. The line of insertion of the capsular ligament of the hip-joint in one individual does not show the line of insertion of the capsular ligament of the hip-joint in another individual.

5. The insertion of the capsular ligament of one hip-joint will show the insertion of the capsular ligament of the other hip-joint in the same individual, because the insertions of the capsules of the hip-joints of the same individual are perfectly symmetrical.

Now in regard to the symmetrical insertions of the hip-capsules of the same individual, I may be permitted to make the following remarks:—

1. For all practical purposes there can be no doubt that the insertions of the two hip-capsules of the same individual are symmetrical.

2. And yet in many instances there is a slight a-symmetry of the insertions of the hip-capsules of the same individual.

The hip-capsule is derived from the general connective tissue that covers the femur below the joint. And there is also a layer of this general connective tissue going upward on the femoral neck within the hip-capsule as far as the base of the head of the femur. This layer is sometimes called the reflected capsule of the neck of the femur—but in reality is no capsule at all. In so far as the femoral neck is inside the joint the bone is not covered with cartilage, but is covered with periosteum and synovial membrane. The existence of synovial membrane on the femoral neck is a fact of great practical importance.

Let us now take up the second line of inquiry, namely, what is the internal structure of the neck of the femur. In August, 1876, in the *Archives of Clinical Surgery*, I enunciated the three following propositions:

Proposition I.—The compact tissue of the inner wall of the shaft of the femur continues in the main compact up to the head of the femur.

Proposition II.—The compact tissue of the anterior and outer walls of the shaft of the femur separates its plates into cancellous tissue, forming the great trochanter.

Proposition III.—The compact tissue of the posterior wall of the shaft of the femur separates its plates into cancellous tissue, forming the small trochanter.

To these propositions let me now add the following statements:

1. The compact tissue of the under side of the neck of the femur goes up to the head of the femur somewhat in the form of a pyramid

is *marginatus*. It will not be necessary to show how a given muscle may act as an in-rotator at one time, and as an out-rotator at another time.

It must be ever kept in mind, that the sheath of each and every muscle about the hip-joint will, under certain circumstances and conditions, perform the function of a ligament. For instance, (1) When the given muscle is completely relaxed and elongated; also (2) when the special muscular structure is *strongly atrophied on account of disease*.

From the measurements of Dr. Geo. K. Smith it would appear, that the posterior surface of the neck of the femur, on the average, is covered by the hip-capsule only to the extent of about three-fourths of an inch. It would follow, therefore, that, on the average, only about one-half of the posterior side of the neck of the femur is covered by the hip capsule. Yet sometimes more than one-half of the posterior side of the neck of the femur is covered by the hip-capsule; and sometimes less than one-half of the posterior side of the neck of the femur is covered by the hip-capsule. Some practical conclusions may be drawn from these facts, namely:

1. In general, if the internal half of the neck of the femur is fractured, the fracture will be intra-capsular.

2. In general, if the external half of the neck of the femur is fractured, the fracture will be both intra-capsular and extra-capsular.

3. On the supposition that the hip-capsule in front of the femoral neck is inserted into the spiral ridge, and that the neck of the femur is limited by the spiral ridge in front, it must follow that the neck of the femur can not be fractured wholly outside of the hip-capsule; in other words, in the case supposed, an entire extra-capsular fracture of the neck of the femur would be impossible.

4. On the supposition that sometimes about one-half inch of the neck of the femur in front is not covered by the hip-capsule, there could be an entire extra-capsular fracture of the neck of the femur.

5. Hence, in a given case, as it would be very difficult to determine the seat of a fracture of the neck of the femur, and as it would be impossible to know the line of insertion of the hip-capsule, it would be clearly impossible to say with certainty: (i.) This fracture is intra-capsular; (ii.) this fracture is extra-capsular; (iii.) this fracture is both within and without the hip-capsule.

Theoretically there are three places where the neck of the femur may be broken, namely: (i.) At the summit, where the neck is continuous with the head of the femur; (ii.) Near the middle, where the capsule is ordinarily inserted posteriorly; (iii.) At the base, where the neck rests on the trochanteric portion of the femur. The base of the neck of the femur may be driven into the substance of the trochanters, making an impacted fracture. The osseous structure of the neck of the femur near its middle is apt to be completely separated, making a simple fracture. The summit of the neck of the femur may be driven into the head of the bone, making an impacted fracture. But there can be no doubt that the neck of the femur is sometimes simply fractured in the continuity of its internal half, where it will be truly intra-capsular.

The following facts appear to be well established, namely:

1. Fracture of the neck of the femur is an accident of advanced life, say after forty-five years of age. It has been known to occur in early life.

2. Fracture of the neck of the femur is more frequent in females than in males.

3. In advanced life the connective tissue of the neck of the femur undergoes degenerative

changes; the red marrow of the cancellous structure is probably more abundant than in early life; the special bone-substance becomes more brittle than normal. In a certain number of cases there is a considerable accumulation of fat inside the shell of compact bone; and the special bone-substance is not held together and supported by strong connective tissue; and the consequence is that the neck of the femur is broken by the application of slight force.

4. Fracture of the neck of the femur is more frequent than dislocation of the femur. And fracture of the neck of the femur is comparatively of greater practical significance than dislocation of the femur.

I have treated about twenty cases of fracture of the neck of the femur, while I have treated only four cases of dislocation of the femur. If this were the real ratio between these two kinds of accident, fracture of the neck of the femur, would occur five times while dislocation of the femur would occur only once.

In this place, let me say that all the cases of fracture of the neck of the femur seen and treated by me were produced by the patient falling on the hip. The patient falls; the femur is somewhat out-rotated; this is usually the case; the impact of the fall is upon the summit of the trochanteric pyramid—or upon its anterior face; the greatest stress is on the posterior wall of the femoral neck in either case; the posterior wall of the femoral neck is driven into the substance of the trochanters; there is so far an impacted fracture; the anterior wall of the femoral neck is bent, partly broken, and, as it were hinged; the shaft of the femur is outrotated; and the upper fragment is tilted forward and inward. And it may happen that the entire base of the femoral neck may be driven into the two trochanters, making a complete impacted fracture. Again the apex of the pyramid of the compact tissue on the under side of the femoral neck may be driven into the head of the femur, with more or less crushing of the cancellous tissue of the rest of the femoral neck at its summit. Before investigating the displacements of the bony fragments, when the neck of the femur is broken, it will be important to consider the conditions of a good measurement. For a good measurement bears on the diagnosis and on the results of treatment, in the most significant manner.

The conditions of a good measurement may be enumerated as follows, namely:

1. The corresponding points of the comparative measurements should as much as possible be carefully and accurately located before measuring. It is generally not difficult to find the malleoli of the tibia and fibula and the anterior superior spinous process of the ilium. It is sometimes difficult to find the top of the great trochanter. But it is not very difficult to find the base of the tibia—*when the leg is semi-flexed on the thigh*.

2. The *personal equation* of the one who measures should as far as possible be eliminated during the process of measurement. This will require great care and a number of measurements. The figures on the tape-line should be out of sight when the measurement is made. The same measurement should be repeated several times.

3. The material of which the measure is made is important. Let me say here that the steel ribbon is the best for making accurate measurements. I have many times requested a doctor to lend me his tape-line. When I have laid it on a table by the side of my *steel ribbon*, (i) quite often the units of distance on the tape-line are greater or less than the units of distance on the steel-ribbon; (ii) without exception, in these experiments, I have been able with moderate tension to stretch the tape-

form the structure of the anterior portion of the neck of the femur. Sometimes the base-plate of the spiral ridge seems to be continuous with the compact tissue of the anterior side of the neck of the femur.

3. The cancellous tissue of the great trochanter is more or less continuous with the neck of the femur. On this side of the femoral neck there are no special plates of bone.

4. The plates of cancellous tissue, forming the small trochanter, in conjunction with the plates of cancellous tissue, forming the trochanteric ridge, combine, to a certain extent, to form the structure of the posterior portion of the neck of the femur. In this case also, sometimes the base-plate of the small trochanter and the trochanteric ridge seem to be continuous with the compact tissue of the posterior side of the neck of the femur.

5. This base-plate of the small trochanter is a continuation of the true neck of the femur. But it may be remarked that there is but very little compact tissue in the region of the digital fossa, the compact tissue of the shaft being separated into cancellous tissue.

It is important to note the dynamic relations of the great trochanter to the neck of the femur. The following points may be enumerated, namely:

1. The great trochanter somewhat roughly rests on the base of the femoral neck, and whose summit is at the outer aspect of the upper end of the femur.

2. The great trochanter does not project beyond the femoral neck in front.

3. The great trochanter does project beyond the femoral neck behind.

4. The summit of the trochanteric pyramid is nearly directly outside, or over, the continuation of the posterior side of the neck of the femur.

5. A blow on the outside of the great trochanter will, therefore, be transmitted quite directly to the compact tissue of the posterior side of the neck of the femur.

6. Hence, the posterior portion of the femoral neck will receive the shock of a blow impinging on the summit of the great trochanter, except in rare cases to be noted in another place.

In order to understand the symptoms of fracture of the neck of the femur, it is necessary to have clear ideas on the functions of the upper end of the femur, and on the action of the muscles that move the thigh. Especially is it necessary to arrange these muscles into two groups, to wit:

I. The *in-rotators*: II. The *out-rotators*. For our present purpose it is only required to mention the muscles belonging to each group.

I. The in-rotators of the thigh are: (1.) The *gluteus minimus*; (2.) The *gluteus medius*; (3.) The *tensor vaginæ femoris*; (4.) The *vastus externus*; (5.) The *vastus internus*; (6.) The *crurens*; (7.) The *rectus femoris*; (8.) The *gracilis*; (9.) The *semi-membranosus*; (10.) The *semi-tendinosus*; (11.) The *iliacus*; (12.) The *psaos magnus*; (13.) The *pectineus*; (14.) The *adductors*.

II. The out-rotators of the thigh are: (1.) The *gluteus minimus*; (2.) The *gluteus medius*; (3.) The *gluteus maximus*; (4.) The *pyriformis*; (5.) The *obturator internus* and the *gemelli*; (6.) The *obturator externus*; (7.) The *quadratus femoris*; (8.) The *biceps femoris*;

line one-fourth of an inch in every thirty-two inches. So that it is possible with the tape-line—when a personal equation supervenes—to obtain a measurement one-fourth of an inch longer than the true measurement. Now if we add to this the sometimes possible variation of one-fourth of an inch in the selection of the points of measurement, we shall find that the tape-line may give us an error of one-half inch.

When the neck of the femur is broken, the fragments may or may not be displaced.

I. In case the fragments are not displaced: The fractured ends will be held in apposition by the action of the muscles, by the indentations on the ends of the fragments, and by the hip-capsule, or the reflected capsule. As the upper fragment will be free to move in the socket, it will follow the motions of the lower fragment, and the signs of displacement and crepitus will be wanting.

II. In case the fragments are displaced, how shall we determine the displacements? The lower fragment is generally out-rotated. The conformation of the upper end of the femur and the direction of the applied force are important causes of the out-rotation of the lower fragment. And the powerful out-rotating functions of the *psaos magnus*, the *iliacus*, the *pectineus*, and the *adductors* are also important causes of the out-rotation of the lower fragment. Of course the rest of the out-rotators and the weight of the lower limb will co-operate with the above mentioned causes. Now a word in regard to the value of out-rotation by itself, as a sign of fracture of the neck of the femur: Sometimes the femora of the same patient are not symmetrical in regard to the rotation of their shafts on the femoral neck. In such a case it would be impossible to say whether the out-rotation of the femur was due to development or injury. Hence, out-rotation of the femur cannot be a sure sign of fracture of the neck of the femur. So much for the rotary displacement of the shaft of the femur.

The lateral displacement of the ends of the fragments will involve the longitudinal displacement of the shaft of the femur. There will be a shortening of the length of the lower limb, in which the femoral neck is broken. How shall we find this out? The a-symmetry of the length of the lower limbs is an important factor in this business. There may be three different cases.

CASE I.—When the lower limbs are symmetrical, the shortening, if any, may be found by the ordinary methods of measurement.

CASE II.—When a patient falls upon the great trochanter of a lower limb originally shorter than its fellow: (i.) The difference in length is not conclusive evidence of a fracture of the femoral neck; (ii.) The difference in length of the lower limbs must be greater after than before the injury. This fact may be generally determined by carefully measuring from the tops of the great trochanters to the external malleoli. This will show the original difference in length of the limbs; then by measuring in the usual way, when the difference will give the actual shortening of the injured limb.

CASE III.—When a patient falls upon the great trochanter of a lower limb originally longer than its fellow: (i.) The equality in the length of the limbs is not conclusive evidence of a fracture of the femoral neck, nor is the equality in length of the limbs conclusive evidence that there is no fracture of the femoral neck. (ii.) The limbs must be comparatively measured from the tops of the great trochanters to the ends of the external malleoli; when the a-symmetry may generally be detected, and then we can say quite positively that there has been a fracture of the femoral neck. (iii.) In addition to this

the top of the great trochanter on the injured side may be found to have moved upward nearer the crest of the ilium; by means of the line of Nelaton or Bryant's triangle this fact may be determined. (iv.) Semi-flex the leg on the thigh so as to put the base of the tibia behind the femoral condyles, and it will generally be easy to make an approximate measurement of the length of the tibia; for the edge of the base of the tibia will be brought quite prominently under the integument in front on the side of the ligamentum patellæ. In the same position of the leg, the lower, or distal, border of the femoral condyles will be also brought under the integument, so that the femora can be comparatively measured. In this way any notable a-symmetry of the leg-bones, or the thigh-bones, may be found out approximately and put to the proper account.

These elements have some important practical bearings.

First. Let us take the following case: A patient falls upon the trochanter of an originally shorter lower limb; the surgeon who is called to see this case measures the limbs in the ordinary way, and finds the injured limb about one-half-inch shorter than the uninjured limb; and then concludes that there is an impacted fracture of the femoral neck; the gist of the matter is, the patient is treated for an impacted fracture of the femur, when the neck of the femur has not been fractured. Now I have known just such a case as this. Well, in such a case, what are the legal responsibilities? If the methods of diagnosis, above brought forward, are within the reach of ordinary knowledge and ordinary skill, it must follow, that there has been negligence on the part of the surgeon, who has confined his patient in bed for a longer time than necessary to treat a contusion of the hip.

Second. Let us take another case: A patient falls upon the trochanter of an originally longer lower limb; the surgeon, who is called to see this case measures the limbs in the ordinary way and finds the two lower limbs of the same length, and then concludes, that there is no fracture of the femoral neck; the gist of the matter is, the patient is made to get up and walk, when the neck of the femur has been fractured. Now I have known just such a case as this. Well, in such a case, what are the legal responsibilities? If the methods of diagnosis above brought forward, are within the reach of ordinary knowledge and ordinary skill, it must follow, that there has been negligence on the part of the surgeon, who made his patient walk on broken bones.

In the first case, the difficulty of making a correct diagnosis may not be insurmountable; but should there be any reasonable doubt as to the diagnosis, the patient must have the benefit of that doubt, and be properly confined to his bed till the doubt is removed. In the second case, the difficulty of making a diagnosis may for a time be insurmountable. Should this be so, the patient has a right to the benefit of this doubt. The patient should be treated for a fracture of the femoral neck, till the doubt is removed, and after that, if there is a fracture of the femoral neck.

In this connection it is competent to make two points.

(1.) Attention may be drawn to the fact, that a strong personal equation impressed on an extensible tape-line might materially complicate a case of fracture of the femoral neck both as regards diagnosis and the results of treatment.

(2.) Personally I would not like to say, when the subject of a-symmetry should be imposed as a matter of fact and rule of law on the profession in the diagnosis and the treatment of the very grave surgical cases

the sooner the surgeon is fully impressed with the fact, that the patient will be better off if he is treated for a fracture of the femur, the better it will be for him and his patients.

N. In case of the fragments, when the femoral neck is broken, the following may be said:

1. In case of the inner end of the outer fragment of the broken femoral neck is common, though at times very slight, and has already been considered, when speaking of the longitudinal displacement of the femur. The upward lateral displacement of the outer fragment may vary from almost nothing to three or four inches.

2. In fracture of its neck the upper end of the femur is generally displaced backward, so that the great trochanter of the injured side is at a greater distance from the symphysis pubis than the great trochanter of the uninjured side. This displacement is due to the direction of the injuring force, the action of the out-rotators, and the weight of the limb.

The inner fragment of the broken femoral neck will have no muscular attachments;—if the fracture is intra capsular, the inner fragment will be connected with the acetabulum by the ligamentum teres; if the fracture is both intra and extra-capsular, the inner fragment will be connected to the pelvic bones by the ligamentum teres and the posterior part of the hip-capsule; and if the fracture is extra-capsular, the inner fragment will be connected to the pelvic bones by the ligamentum teres and the entire hip-capsule.

4. So far as we at present know the outer end of the inner fragment of the broken femoral neck is displaced upward and forward.

In this place would come in properly the subject of the longitudinal shortening of the broken femoral neck, or what amounts to the same thing, the internal lateral displacement of the femur. And as ground-work for conclusions, the following facts may be enumerated, namely:

1. As already stated, the average length of the femoral neck is about 1.4 inches.

2. The base of the femoral neck on the under side is frequently directly under the junction of the femoral neck and the head of the femur on the upper side. Sometimes the base of the femoral neck on the under side may be as much as one-half inch outside of the relation just described.

3. If the fracture of the femoral neck is intra-capsular, the line of the separation of the bone on the under side of the neck, will probably in all cases be directly under the outer part of the upper side of the head of the femur.

4. If the fracture of the femoral neck is where the hip-capsule is ordinarily inserted behind, and this is where fracture of the femora often takes place, the line of separation of the fragments of bone on the under side of the neck will probably never be much outside of the junction of the head and neck of the femur on the upper side.

5. The head of the femur does not often project much beyond the brim of the acetabulum.

We may now come to the following conclusions, namely:

(1) In all impacted fractures of the femoral neck, there will be some internal lateral displacement of the femur. At times this displacement may be very slight; at times it may be of some considerable extent.

(2) In all complete fractures—without impaction—of the femoral neck, when the lateral displacement of the cervical fragments is incomplete, it is evident, that there can be no internal lateral displacement of the femur to any notable extent.

(3) When the outer cervical fragment is

For a year previous to his admission his condition had been about the same as when admitted. At this time he is poorly nourished, weak, slow in all his movements, but clear in mind; he has a peculiar cachexy, strongly suggestive of carcinoma. He has vomiting after meals but vomits no blood. He has a heavy, bad feeling in his stomach, but no constant pain. He has diarrhoea, and his

HYPODERMIC MEDICATION.

rales of bronchitis heard over the front of the chest, the examination of the heart was not detected. On the evening of November 23d he was found to be quite comfortable; five minutes later he was cyanosed and rales were heard over the lungs. He was given a glass of brandy and digitalis given hypodermically and he rallied quite quickly. This was followed by a second and a third attack, the latter causing death almost instantaneously. At the autopsy there was found fluid in both pleural cavities. On the left side the pleura was adherent in two places; one to the diaphragm and the other to the costal walls. The heart showed the left cavity dilated and its walls hypertrophied; the ventricle was occupied by a thrombus in layers, uniform, reddish-gray in color, with a spot of degeneration in its centre. Just when it had been formed it was impossible to ascertain, as the patient was a tramp and gave a rambling history. The kidneys showed advanced Bright's disease and in one of them was a small infarction.

In answer to a question of Dr. Amidon, Dr. Janeway stated that, in his first case, there was a slight incoordination. The middle peduncle was also involved, a fact which ought to have given rotary movements, but he had looked particularly for them and failed to notice any.

Dr. Loomis said in reference to the second case presented by Dr. Janeway, that he had some years ago recognized the truth of Stoke's explanation of those cases in which bronchial breathing was found with pleuritic effusion, that in these cases there would always be found compressed lung, but not compressed bronchial tubes, and as long as the tubes remained pervious and extended below the level of the fluid, there would be bronchial breathing, while vocal fremitus would be unaffected. Pectoriloquy was merely a modification of bronchial voice. But the character of the natural voice made a great difference in regard to the modification of the voice sound in diseased conditions. If a portion of the lung were not below the level of the fluid, bronchophony would not be heard.

Dr. Janeway replied that he had a case some years ago, in which the upper lobe was adherent and the lower lobe not.

Dr. Loomis continued, that he could hardly understand how death would occur from a soft thrombus, as this would not interfere with the play of the valves. The cause of death in such cases was failure of the heart-walls.

Dr. Janeway called attention to the fact that the thrombus was evidently a thrombus, whose process of formation had been going on for some time, as it was laminated and had already commenced to degenerate. The thrombus caused deposit on the valves, and by its gradual increase, brought about a condition in which the heart could not work well on account of interference with the play of the valves. He did not deny that the degeneration of the walls was a factor in producing the fatal result, the two causes acted and reacted.

Dr. Amidon presented some microscopic specimens exemplifying the

He said that although hypodermic medication had been in vogue twenty-five years, or, according to the claims of some, forty years, he was not aware of any accurate investigations of the relations between the hypodermically injected mass and skin. He had injected Prussian glue (a weak solution) into the skin of moribund subjects, and the portion of skin was excised after death. The hypodermic injection was given in what he considered the best manner, namely by pinching up a fold of skin and introducing the needle horizontally. The hypodermic injection was found to occupy a space three and a half centimetres in diameter and one millimetre in thickness, tapering in shape. The location of the hypodermic injection varied according to the amount of adipose tissue in the subject; in those who had but little adipose tissue the hypodermic injection remained immediately below the skin; while in those who had much, the injection diffused itself. It would be seen in the specimens presented that the hypodermically injected mass lay close to the arteries and veins; sometimes it completely surrounded an artery or vein. This together with some other experiments proved that it was by the blood-vessels and not by the lymphatics that absorption took place. In order still further to test the matter he had injected muriate of pilocarpine into the ankle and into the supra-clavicular region; the physiological effects of the drug (diaphoresis, salivation, etc.) were produced in both cases in about the same time, varying in different subjects from one and a half to four minutes; there was no appreciable difference. If the absorption had been by means of the lymphatics, the injection in the supra-clavicular region would have produced its effects much more rapidly than that injected into the ankle. In one of the slides the section had fortunately been made in the line of the puncture of the needle and showed that considerable injury had been done to the tissues.

In answer to a question he stated that he had not examined the lymphatic glands.

Dr. Sanger stated that similar experiments had been made and the coloring matter found in the lymphatic glands.

Dr. Keyes remarked that in tattooing the lymphatic glands were discolored.

Dr. Amidon thought that a distinction should be made between the insoluble India ink, etc., used in tattooing and the soluble Prussian blue used in his experiments.

Dr. Alfred L. Loomis presented specimens of heart, kidney, and uterus from a woman who had died of pyæmia which raised the question of

THE RELATION OF BACTERIA TO PYÆMIA.

The patient was 21 years old, and was admitted to Bellevue Hospital, Dec. 2d. She had always been well previous to her present illness. Two years ago she had had acute articular rheumatism which had not been followed by cardiac disease. She had been married four months and had menstruated once since her marriage. Two weeks before admission she had hemorrhage, bearing-down pains, etc., in short the symptoms of miscarriage. In 48 hours an ovum and a portion of the placenta had been removed by the forceps; they had already begun to be offensive. This was followed by moderate flow which was not offensive. She felt well until the third day; then she had a long and severe chill, followed by high fever. Next day she had another chill followed by fever; then the fever had continued. She became somewhat delirious and on the eleventh day was admitted to the hospital. When admitted her

temperature was 105, pulse 120, the face was flushed; she was restlessly delirious, lethargic but could be roused and when roused was rational. Quinine was given. The next morning at seven her temperature was 101; she was more lethargic and vomited constantly. She complained of no pain; the countenance was that of acute mania, but she did not require restraint. She muttered constantly. Before noon the temperature had risen to 105° and remained high until her death although large doses of quinine and salicine were given and she was placed on a water diet, and cold applied. There were no symptoms of pulmonary disease. After admission her pulse was 140; a blowing-murmur was heard with the first sound of the heart over its base and body. It was a question as to whether this was due to changes in the blood or to endocarditis. She passed into a condition of coma twelve hours before death and died seventy hours after admission.

At the autopsy the uterus was found enlarged and seemed to contain portions of placenta at its upper and anterior border. Just within the os there was a slough which penetrated quite deeply. There was no pus or thrombi in the veins and no inflammation about the uterus. There were infarctions in one of the kidneys; some also in the spleen which were somewhat softened. On the auricular part of the left heart at the base of the valves there were evidences of old endocarditis; on the surface of the heart were ecchymoses and evidences of circumscribed myocarditis. Bacteria were found in a number of organs.

The point of interest in this case was the occurrence of pyæmia (if infarctions were an evidence of pyæmia) with the clinical history of septicæmia. While the patient was in the hospital, the os had been dilated by spongetents and the cavity of uterus washed out. Previous to this the discharge had not been offensive, after this procedure it became so.

Dr. Janeway said that he had made the autopsy in this case and had found the infarctions to be little abscesses, containing breaking-down matter; one in the walls of the heart contained pus and broken down fibrin. In every case where the trouble was there were bacteria; and these bacteria were in colonies. He had never seen a case which was more convincing: there were no thrombi, there was no inflammation, yet something had evidently gone through the lungs to the kidney, spleen, and skin, and here colonies of bacteria were found. It seemed to him that the poison was either the bacteria or something covered by them. It was not the ordinary loose bacteria rod-formed, unchanged by glacial acetic acid and changed by methy-lamine.

Dr. Loomis said that there was a part of the clinical history which he had omitted to state: the nervous system was perfectly overwhelmed; a rash formed, soon petechiæ developed, and serous exudation took place.

Dr. Janeway suggested that the eruption might have been caused by punctate bacteria.

Dr. Loomis asked how the occurrence of bacteria in a drop of healthy blood was to be explained?

Dr. Janeway replied that Koch had experimented with the field-mouse and the house-mouse, and Chauveau with the mountain goat and the domestic goat, by inoculation; the wild animal died, the tame did not; in those that died bacteria were found, in those that lived none could be discovered. There must be something which in both instances protected the domestic animal from a poison which was fatal to the same species in a different state.

Dr. Peters suggested that the question as to

whether bacteria were found in a drop of blood depended on the rapidity with which it was prepared and examined after its removal from the body. This had been found to be the case by Dr. Schmidt of New Orleans, in his investigations in the pathology of yellow fever.

Dr. Loomis said that it seemed to him that the correct theory was the one advanced by Dr. Krackowitzer at a meeting of the Academy of Medicine some years ago, which was that there was a pyæmic measure which allowed the production of thrombi, which undergo rapid degeneration. He thought that this process went on first and that the bacteria were produced afterward.

Dr. Van Giesen asked whether the forceps used at the delivery had been introduced into the uterus, as thus the slough might be explained.

Dr. Loomis answered that there was no information on that point.

Dr. L. A. Stimson presented a specimen of POST-VISERAL SUTURATION,

taken from a patient who had entered Bellevue Hospital two months ago; he was stupid and no reliable history could be obtained. The urine showed albumen and casts. His mind failed and he died. At the post-mortem examination one kidney was found reduced almost to a simple sac; the other weighed about eight ounces and was the seat of parenchymatous and interstitial nephritis. In the brain on the left side there were the remains of an apoplectic effusion. The bladder contained 4-5 $\frac{3}{4}$ of urine, and on opening it there was found around the opening of the urethra a ring, mottled and streaked. The bladder was closely adherent to the os pubis and to a fibrous mass extending to the rectum. The latter was the seat of ulceration. This mass showed free infiltration with pus, which lay in sacs, having a bright lining membrane and seemed to be in the blood-vessels. This mass lay in the situation of the seminal vesicles and was either a tumor or multiple abscesses. The liver was also covered with white spots, many of which were round and branched and all of which seemed to Dr. Stimson to be contained in the blood-vessels.

Dr. Keyes said that there must have been some urinary symptoms, as the area around the neck of the bladder was recent, showing numerous abscesses barely under the mucous membrane, and not having gone on to supuration.

The society then went into executive session, and soon afterwards adjourned.

MEETING OF THE NEW YORK ACADEMY OF MEDICINE, DEC. 1899.

(Reported for the MEDICAL GAZETTE.)

The meeting was called to order by the President, Dr. Fordyce Barker.

The minutes of the last meeting were read and approved.

The paper of the evening was then read on VERSION, FORCEPS, AND THE EXPECTANT PLAN IN THE TREATMENT OF CONTRACTED PELVES, BY DR. WM. T. Lusk.

The author said his remarks were intended to apply to the then most common forms of contracted pelvis only, viz.: the flattened non-rachitic pelvis, the flattened rachitic pelvis, and the justo-minor pelvis. Of course any unusual plan of treatment would only be called for in cases in which the contraction was so great that it was impossible by the unassisted powers of nature to deliver the child alive. In most of these cases the appropriate treatment would be the induction

of premature labor between the thirty-second and the thirty-fourth week. But the physician may only be called at the end of gestation.

In such cases the first stage of labor should be conducted in such a way as to pave the way for the second. To prevent a too early rupture of the bag, the patient should be kept quiet, cautioned against bearing down, and, if the bag has a tendency to protrude as an elongated cylinder, a Barnes' dilator may be placed in the vagina. Faulty position and presentation should also be prevented or corrected by putting a bandage around the abdomen if pendulous, by attention to the position of the mother, or by compression above the pubis. If the pains are weak, they may be strengthened by the warm vaginal douche, and if they are painful, the pain may be relieved by morphia, rectal injection of chloral, or an anæsthetic. If, after rupture of the bag of waters and complete cervical dilation, it be found that the deformity is slight, the case may be safely left to nature. But if the head do not engage at the superior strait on account of the amount of deformity, the question will arise as to the advisability of waiting, or of performing version. Forceps, as a means of delivery before fixation of the head, should be discarded, not because they cannot be employed with success, but because their use, even in the most skilful hands, is extra-hazardous.

The particular operation selected by the physician will of course depend largely upon his experience and skill with one or the other procedure. But there are certain things which should be borne in mind with reference to version: first, that the object of the operation is, to save the child. Therefore, if the child be dead, or the heart have begun notably to fail, or if it would be impossible to deliver without the infliction of fatal issues, version should not be thought of. Secondly, the conjugate diameter should be between two and three-quarters, and three and a half inches, and the transverse not too disproportionately diminished. There are no authenticated cases of living children having been delivered by version from pelvis less than two and three quarter inches in conjugate diameter, and beyond three and a half we may trust the efforts of nature. This version is indicated in contracted pelvis only when the child's heart beats with nearly unimpaired vigor, and in pelvis measuring between two and three quarters and three and a half inches antero-posteriorly, with the contraction limited to the brim, and with sufficient amplitude in the transverse diameter. The advantages of version in contracted pelvis grow out of the fact that the head, entering the pelvis by its bi-mastoid diameter, is much more easily moulded than in the usual vertex presentation. The manner of turning and of subsequent extraction is the same as when performed in the normal pelvis. It is necessary to exercise great care lest the arms be crowded up by the side of the child's head, and to avoid this it is advisable to pass the hand over the child's abdomen, and bring down the arms before the engagement of the shoulders. Traction to assist the delivery of the head must be made either upon the lower extremities and shoulders, or with one hand on the shoulders, and the fingers of the other in the mouth. The degree of force that may be exerted by either of these methods without producing fatal lesions is astounding. It is usual to combine pressure from above by a skilled assistant with the traction from below. The version and subsequent extractions are associated with dangers by no means insignificant. Among these are fractures of the clavicle or humerus, rupture of the sternomastoid muscle, rupture through the substance of a vertebra, extravasations of blood

of the condyles from the occiput and of the squamous from the parietal, fractures and depressions of the skull, and rupture of the sinuses of the dura mater. The chief danger, however, lies in the respiratory efforts of the child, and in the pressure of the after-coming head, and by the depressing effects on the heart of pressure on the base of the brain.

Having thus seen the obstacles to, and the danger of the operation, the following statistics will aid in understanding how far they invalidate the operation:—

	Operated	Cases	Alive	Dead	Mothers Survived	Mothers Died
Krackowitzer	11	7	4	3		
Loewenhardt	45					

Therefore, out of forty cases thirty-one children were born alive and none of the mothers died; while Loewenhardt's statistics as to the result of the use of the forceps in similar cases furnish a marked contrast. Another side of the question has been presented by Borinski, who collected 93 cases of the Breslau Clinic, from 1865 to 1872. Thirty-four children were saved and fifty-nine born dead; fifteen mothers lost their lives. Throwing out those cases in which children had died before version was attempted, or where the operation should not have been performed for other reasons, one-half of the children died. In extenuation of the maternal mortality it should be said that many of the operations were rendered necessary by disease of the mother, and three deaths only were attributed to the operation. It must also be borne in mind that many of these cases occurred in the out-department, and that the midwives did not send for the physician in proper time.

On the other hand, Dr. Harold Williams collected statistics of 119 cases, in which the forceps were applied to the head above the brim, reported since 1858. Nearly 40 per cent. of the mothers and over 60 per cent. of the children died. The mechanical objection to the use of forceps are obvious; they interfere with the moulding of the head to the contracted pelvis by natural forceps, and, being applied to the occipito-frontal diameter of the child's head, increase the width of the head and thus add to the difficulty of passing the conjugate.

Suppose that, after rupture of the membranes it is desired to resort to neither the forceps nor version, but to adopt an expectant course, until circumstances arise which shall render active interference necessary. It is certain that a very considerable portion of labors in contracted pelvis terminate spontaneously, as will be seen from the following statistics:

EXPECTANT.			
No.	Ref. to	Date.	Children Alive.
35	Winkler, Dresden	1885	
100	Oberlin, Leipzig	1889	
224	Bornfeld, Berlin		
	Clinic,		
Children			
Delivered.	Mothers Survived.	Mothers Died.	
35	29	2	
100	70	4	
224	180	10	

Thus there were in 407 cases of contracted pelvis, with spontaneous delivery, a loss of 53 children. Even in pelvis measuring less than three inches, now and then spontaneous delivery of a small child takes place.

in the ordinary circumstances, in all cases of a contracted pelvis, contraction of the uterus, and the nature of the nature will do her own work with the least loss of life. But, on the other hand, the prolonged pressure of the child's head on the pelvic bones, and the many of the inflammation of the pelvis, which complicate the puerperal state.

Thus the selection of one or another of these plans narrows itself down to cases in which the nature of the membranes has taken place, the head remains above the pelvic brim, and the possibility of effecting a happy termination, provided the labor-pains are powerful enough. When the pains are weak, it may be still possible to perform version. More frequently, however, the head does not prevent the escape of the waters, the uterus is drawn up, and the vagina subjected to a painful degree of tension and craniotomy must be performed. Therefore, although in most cases the danger will not arise, still many operators, in view of its possibility, prefer to keep things in their own hands and perform version early. Most physicians, however, prefer to wait and watch. As long as the head continues to descend, even though slowly, nothing need be done. If the pains grow weak, they may be stimulated by the uterine douche, intra-uterine catheterization, ergot, or viscum album. If the advance of the head ceases, either through failure of the uterus or obstruction to the head of the child, the forceps should be applied, if the mother's parts are in a condition to bear further pressure, or perforation should be resorted to.

In flattened pelvises, the forceps should be applied, as nearly as possible, to the occipito-frontal diameter. In justo-minor pelvis the direction of the bladder is of less importance. Success in high forceps operations depends upon the degree of accuracy with which traction is made in the axes of the pelvis. Of late I have been in the habit of using Tarnier forceps in high operations and am able to give them my cordial approval.

If the membranes rupture before dilatation of the cervix, the dangers both to mother and child are much increased. Timely aid, therefore, should be rendered, before the prolonged pressure in the soft parts leads to gangrene. First a Barnes' dilator should be used and then the narrow-bladed forceps of Dr. Taylor introduced, and by causing the head alternately to advance and recede, making the rounded head act as a dilator.

The author then showed the Tarnier forceps to the Academy and demonstrated its action on the mannikin. He said: that the instrument had been shown to the Academy two years previously by Dr. Fordyce Barker. At that time, in common with most of the members, he had found little to commend in it. But on further reflection he was not so sure of its defects as had at first appeared and he determined to give it further study and, if he should think it advisable, trial. The great objection had appeared to him to be the danger in pressure which it exercised on the child's head. But this he had not found to be so perilous as he had imagined, and in conversing with M. Tarnier on the subject, the latter had offered to apply it to the head of a new-born child and leave it on for twenty-four hours. The ordinary forceps, when applied above the brim and traction made vertically downward cause a pressure of the head against the bladder and the symphysis pubis. The Tarnier forceps avoids this and, by watching and following the index, the operator can always make pressure in the direction of the axis of the pelvis. He had applied it fifteen times, and could now deliver in a few minutes where it had been formerly necessary for him to consume half an

hour. He had modified Tarnier's original instrument by making the blades thinner and adding a different slide.

The paper being before the Academy for discussion, Dr. Isaac E. Taylor was called upon and said: there were a number of points in respect to which he differed from Dr. Lusk. As to the instrument which had been so highly commended by him, he (Dr. Taylor) could claim no acquaintance with it, as far as the traction-tools were concerned; but in other respects it was the same as Dr. Davis', and he could see no reason why it should not work as well as any other curved forceps. The difference between version and forceps was $\frac{1}{2}$ of an inch, and Dr. Lusk had taken the view that the forceps should always be applied to the forehead and occiput. But the forceps could be applied, and this was the way that he used them, to the sides of the head, and if one blade was on one side of the pelvis and the other on the other, compression could be made and a diameter of $2\frac{1}{2}$ inches be successfully overcome. If this did not succeed, assistance could be derived from a to-and-fro motion. The base was what must be looked at, and the to-and-fro motion accomplished what the Tarnier forceps did. Even if the forceps did not succeed, recourse could still be had to version. As regards the generally-contracted pelvis, he believed that it was much more common than was generally supposed, and was the cause of many tedious labors. He would not enter into the statistics, as the facts connected with each individual case altered their value materially. The whole point was whether we should not first make trial of the forceps and, not succeeding with them, resort to forceps with traction and external pressure.

Dr. Sell, being called upon, said that the special instrument which Dr. Lusk had so highly recommended he had seen applied to-night for the first time. As to the question of version, forceps, and the expectant plan, he might refer to cases in which version was tried first and failed so that the forceps had to be applied, as the operator had been warned by snapping sounds of the impending rupture of the cervical ligament. He would judge each case by itself, with special reference to the parts of the mother and the size of the child.

Dr. Thomas being called upon, said that he had been much interested in the most excellent paper which Dr. Lusk had read. The only fault he had to find with it was that it left so little to be criticized. To the statistics adduced he would attach but little weight; he believed with Sidney Smith, "that there was only one thing more unreliable than figures, and that was facts." Every one connected with any large hospital knew how statistics were manufactured to order. In what he was about to say, therefore, he would speak only from his individual experience. He hoped that he did not belong to the men of prejudice, but there were some subjects on which his convictions had grown stronger with his increased experience. Supposing we started out with a case in which it was possible to deliver by the natural forces alone; in such a case expectancy ought invariably to be practiced. If moulding was allowed to take place and nature was permitted to do what she could, a happy termination might be looked for. So long as the foetal heart was regular, the mother's parts were moist, her vaginal temperature normal and pulse regular, so long might expectancy be practiced. After this it ceased to be a virtue, and when carried too far, exposed the woman to the dangers of vesico-vaginal fistula, or sloughing and septicemia. Having exhausted expectancy, the question arose between version and the forceps. One or the

other must be adopted. His conviction was that if the uterus did not clasp the child too firmly, if the waters had not been too long evacuated and the head was still above the superior strait, version ought to be performed. If there was difficulty in introducing the hand, the forceps should be resorted to. But if the head had fairly entered the cavity of the pelvis, it was easy to apply the forceps and difficult to turn. Still, though these rules seemed easy enough, he had erred and seen others err. The difficulty was that a decision once arrived at as to the proper course to be pursued in any given case, the operators was apt to imagine that this decision was unalterable. Supposing that the forceps had been applied and had failed, version still remained. He recalled a case which he had seen in consultation with Dr. Barker in which the one had decided in favor of the forceps and the other in favor of version. The forceps were applied and failed. They were then taken off, the child pushed up, version performed and the child successfully delivered. This should always be the rule in cases of deformity. As to the Tarnier forceps he thought they were a great improvement. When Pajot, in answer to the arguments of Tarnier, had answered "Lever, Lever, Lever," he had said as much as that there should never be any improvement on the Lever forceps. Dr. Thomas thought that they would not supersede the instruments now in use in cases in which the head was low in the pelvis; but when the head was at the superior strait or high in the pelvis, he believed it would enable the operator to overcome many obstacles.

Dr. Finnell thought that with the straight forceps one could do all that was required. He thought that the forceps were applied much too often. We should not stint the time but, wait, wait, wait.

Dr. Hauks called the attention of the academy to the fact that in using the Tarnier forceps, Dr. Lusk followed the handles without touching them.

Dr. Munde differed from Dr. Finnell; he thought that we should not wait, wait, wait, but act, act, act. High forceps operations were very difficult and it was a question with him whether, in view of the complexity of Tarnier's instrument, another instrument with a pelvic curve would not supply its place.

The president then remarked:

I congratulate the academy on the fact that this evening the Tarnier forceps has been demonstrated as to its utility and application, so much more effectively than it was two years ago. I beg leave to call attention to a few points, which it strikes me have not been emphasized either by the author of the paper read, or by the speakers who followed, in the degree which their importance merits:

First—As regards the vital condition of the woman, as an element in determining, which method of delivery should be selected, in a given case, when one or the other was necessary in contracted pelvis. The point has been incidentally alluded to in the paper read, and also by Dr. Thomas, but as I think, it was not made sufficiently prominent by either. For in my judgement, this, in the same patient, should under different vital conditions, determine the decision. I may illustrate my views by a brief history of two cases:

Some years ago I was called to see a lady who had been eight hours in labor previous to the rupture of the membranes and in whom it continued fourteen hours with great severity, and but little progress, when she was seized with convulsions. When I saw her she was in a comatose condition, having had six convulsions. I found evident contraction of the antero-posterior diameter of the su-

perior strait. The life of the child was of great importance in the succession of a large estate. The patient was partially anaesthetised by her uraemic condition, furthermore she had been under the influence of chloroform for six hours, to a greater or less degree, and therefore I did not apprehend danger from the shock of the operation and attempted version as probably the more safe method for the child. The head was only partially engaged in the superior strait. So after pushing it up, I succeeded in turning, and, with a good deal of difficulty, extracted the child. It was still born, and required fully two hours to resuscitate and establish spontaneous respiration, but both mother and child are still alive.

The other case was that of a lady in her second labor. In her first, it was discovered that the antero-posterior diameter of the superior strait was contracted and craniotomy was performed. This lady had made her husband and physician promise that the second child should not be "cut to pieces," as she declared that she preferred to die rather than have this done. This was in 1862, and both the physicians whom I met in consultation were opposed to the use of chloroform. When I saw her, she had been in labor thirty-six hours, her pulse was quick and feeble, the vagina was hot and her general condition was very bad. I was sure that the patient could not bear the shock of version, which would have been very difficult, but after a little persuasion my associates consented that the chloroform should be administered and that I might attempt delivery with the forceps, as a safer operation than version. After long and fatiguing efforts, the delivery was effected, but the child was dead. I then urged that if pregnancy occurred again, premature labor should be induced at the eighth month. This advice was followed and I delivered her this time by version, and that child is still living.

There are certain rules which I regard as settled in regard to these cases: 1st, in that form of contraction of the superior strait, called the oblique oval of Nægele, the forceps should not be used; 2d, in that class of cases in which the contraction is at the inferior strait, with a sharp angular, sub-pubic arch, and a straight sacrum, we should never use the forceps, but resort to version; 3d, in face presentation, when the head is above the superior strait, we should never use the forceps. I cannot go so far as the author of the paper and say that the forceps should never be resorted to, when the head is not engaged, for I have safely delivered by the forceps, when on account of the condition of the mother immediate delivery was urgent, and I have applied the blades to the unengaged head. But if the face presented, I should not under these circumstances attempt so hopelessly a procedure.

But I am certain that in at least three cases of face presentation, in which the presenting part had engaged in the superior strait, I have been successful in delivering by the forceps by first flexing the head and converting it into a vertex presenting and partially rotating it. Then taking off the blades, I have reapplied them as if it was a vertex presentation. In these cases, it was fortunate that the original presentation was the face, because the vertex would not have engaged in these contracted pelves if it had presented.

Dr. Lusk, in closing the debate, said that he had a little confidence in statistics, and the discussion seemed to him to show that he was not far wrong. Every pelvis should be measured: if the antero-posterior diameter was between $2\frac{1}{2}$ and $2\frac{3}{4}$ inches, if the os was dilated and the forces were natural, we should wait. He had given statistics which

merely went to show that, in the hands of those accustomed to performing it, version was good, while in those of others it was bad, and that on the whole we could afford to wait. As to use of the forceps above the brim, he had not said that they could not be employed, but had stated that their use was extra-hazardous; but version was so much easier that it should always be adopted. If the funis presented, or there was a face presentation, or the head was transverse, version should be employed. All he wanted was a fair trial for the Tarnier forceps to demonstrate its superiority.

Dr. Taylor explained that he had differed in toto from Dr. Lusk because he believed in applying the forceps transversely to the head and not to its antero-posterior diameter.

The discussion being closed, the president announced that he would appoint as inspectors of election, Drs. F. A. Burrall, E. H. Peaslee, and Dr. Ward.

It was moved and carried that the matter of fusion with the Medical Journal Association be referred to the trustees with power.

It was moved and carried that \$1650 be expended according to the recommendation of the library committee.

A letter was received from Dr. G. M. Smith, declining to write memoir of Dr. White.

The Academy then adjourned.

MEDICAL NOTES AND NEWS.

Transmissibility of Hydrophobia.

It has been an obscure point hitherto whether human rabies is transmissible by inoculation to lower animals and to men. With much contradiction, there has been little scientific observation of facts. M. Raynaud has recently taken an opportunity of ascertaining the effects of inoculation of the rabbit from man in the hydrophobic state. A man in that state was brought to the Lariboisière Hospital, having been bitten in the upper lip by a dog forty days previously. He had had the wound cauterized two hours after the accident, and had thought himself quite safe till some of the usual hydrophobic symptoms appeared. The day before his death, in a quiet interval he yielded himself, with the best grace, to the experiments in inoculation which were made with his blood and his saliva. The result of inoculating the rabbit with the blood was negative (as in the great majority of previous cases of inoculation with blood of animals under rabies). But with the saliva it was otherwise. A rabbit inoculated in the ear and abdomen on the 11th of October began to show symptoms of rabies on the 15th, being much excited and damaging the walls of its cage, while it uttered loud cries and slavered at the mouth. Then it fell into collapse and died the following night. The rabbit's body (it so happened) was not dissected till thirty-six hours after death, and further experiment was made by taking fragments of the right and left sub-maxillary glands and introducing them under the skin of two other rabbits respectively. These two rapidly succumbed, one on the fifth, the other on the sixth day (becoming visibly ill on the third); neither passed through a furious stage, however, and the predominant feature was paraplegia. The important practical result of these experiments is that human saliva, such as caused rabies in the rabbit, is necessarily virulent, and would probably have corresponding effects on man; so that it should be dealt with cautiously, and that not only during the life of the person furnishing it, but in post mortem examination.

Transfusion of Blood.—On November 20th, Professor Annandale performed the operation of direct transfusion of blood by means of Roussel's apparatus. The patient was a young boy, under Professor Sanders's care, who presented some symptoms of pernicious anaemia. Two years before, he had an attack of typhoid fever. Since then, he had suffered from anaemia, quite unrelieved by any of the usual remedies. Within the last few days, delirium, probably from anaemia of the brain, had set in. The apparatus did not work quite satisfactorily; and ultimately Mr. Annandale had to substitute a small canula, passed into one of the veins at the bend of the giver's elbow, for the suction part of Roussel's apparatus. In this way, two ounces and a half of pure blood were transfused. The blood was given by one of Mr. Annandale's dressers.

Iodoform Paste.—At a recent meeting of the New York Dermatological Society, Dr. Bronson showed specimens of iodoform paste, which had been prepared with a view to diminish or disguise the odor of the drug. It was formed by rubbing the powdered iodoform with equal parts of mucilage and glycerine in sufficient quantity to make a soft mass, and then adding a minute quantity of some essential oil; for this latter, nothing had been found better than the oil of peppermint, which had been recently suggested in one of the German periodicals. The proportions in the specimen shown were as follows: R. Iodoformi 3i; mucilag. cum glycerino, gtt. xx; ol. menth. pip. (seu neroli, seu carophylli) gtt. i. Misce.

The will of the late Mr. George William Callendar, F. R. S., Surgeon to St. Bartholomew's Hospital, who died on the 20th ult., at sea, on board the steamship "Gallia," was proved on the 17th of November, by the Rev. Richard Clement Callendar, the brother, the sole executor. The testator leaves all his property to his executor, upon trust for his children.

The degree of LL.D. has been conferred by the University of Glasgow upon Prof. Balfour of Edinburgh and Prof. Lister of London.

Zymotic Contagion.—Professor Tyndall asserts that diseases are propagated not by effluvia or sewer gas, but by solid particles discharged into the atmosphere by currents of air or gas. This he proved by the following experiment: He cut up a piece of steak, steeped in water, heated it at a little above the temperature of the blood, then strained off the liquid; in a short time this fluid became turbid, and when examined through a microscope was found to be swarming with living organisms; by the application of heat these were killed, and when the solution was filtered he obtained a perfectly pure liquid, which, if kept free from particles of dust, would remain pure for an unlimited period; but if a fly were to dip its leg in fluid containing living organisms and then into the pure liquid, the whole would be swarming with animalcula in forty-eight hours.

Preismann on Salicylic Acid in Psoriasis.—A solution of salicylic acid in alcohol (1 in 16), when rubbed over the psoriasis patch, removes the scales in a few minutes, and then prepares the skin for further treatment.

follow the instructions in the reporting of cases, a great deal of valuable material might be collected for the instruction of the profession.

Chapter V treats of the disorders of the special senses; chapter XVI of the physical examination of the chest and abdomen, and chapter XVII of the proper method of performing post-mortem examinations. These three chapters will be found very unsatisfactory; the last, because it is too elementary, and the two former because they are at best but fragmentary. Moreover, it can hardly be deemed consistent with a systematic study of diagnosis to have one chapter (IX) on disorders of the respiratory and circulatory systems, and another (XVI), separated from it by two hundred pages, on physical examination of the chest. The author certainly cannot have intended that in the differentiation of disease the subjective symptoms or the objective signs are alone to be relied on, and yet this arrangement would seem to imply as much.

Of the remaining chapters, constituting the great bulk of the work, much must be said in commendation. Especially is this true of those on disorders of the respiratory and circulatory systems (IX) of the digestive system (X), by Dr. Finlayson, and of the female organs (XV), by Prof. Stephenson. In these the authors have steadily kept in view that this is a work on diagnosis, and taking individual symptoms referable to the parts in question, have shown how by a careful study of them and of their association with others, on accurate comprehension of the disease may be arrived at. Thus, to give a single instance, the author, taking up the subject of dyspnea, says that a knowledge of its cause may be obtained by (1) questioning the patient as to the causes of aggravation; (2) inquiry into his previous history; (3) an examination of the thoracic and other organs; (4) noticing the number of respirations per minute; (5) the appearance of labor in breathing (6) the position of the patient (7) the existence of palpitation; (8) pain in the chest or elsewhere. The chapter on examination of the urine and the significance of urinary symptoms (XIII), by Dr. Finlayson, will be found to answer every ordinary requirement, much better, indeed, than many works devoted entirely to their consideration. On the other hand those on the use of electrical instruments (VII), by Dr. Finlayson, and on insanity (VIII), by Dr. Robertson, are very weak; the former contains valuable reproductions of plates showing Ziemssen's motor points, which will be found exceedingly useful, but it is devoted much more to the consideration of treatment than to that of diagnosis; while the latter is, apparently, a systematic treatise on the subject, written by a specialist and intended for specialists.

And yet, making due allowance for these faults in the conception of the book and its scope, it must be admitted that it is a valuable one, and one that constitutes a real addition to our medical literature. Indeed, in our opinion the study of a treatise like this should form an essential part of the curriculum of our medical schools. The subject of the practice of medicine is usually taught by lectures or lessons on a particular disease or set of diseases. This is very well as far as it goes and is a necessary first step in the study; but logically and practically it is "begging the question." In actual practice we meet with symptoms and signs from which we have to give the name to the disease of which they are the effect, and it would be of incalculable value to them if students were taught to consider symptoms, to study them singly and in their relations to each other, and thus to arrive at a diagnosis.

CORRESPONDENCE.

STRANGULATED FEMORAL

HERNIA

NEWTON, N. J., Dec. 7, 1879.

DEAR SIR:—In glancing over the issue of Smith's Surgery, in a late issue, I am reminded that in five operations for relief of stricture in femoral hernia, (all of them successful,) the obturator artery was twice felt—
—pulsating on the inner aspect of the ring. After the first instance, I had my hernia knife ground, in its cutting part, narrower than in its blunted portion. I now introduce it flatwise and then as I turn up the instrument and before the edge is fairly against the ligament, withdraw it until the wider blunt part of the blade is arrested against the abdominal face of the ring. Then I can divide the stricture without endangering the abnormally situated vessel.

Allow me to offer a suggestion as to the mode of sometimes avoiding a division of the stricture:

Now that doctors are so multiplied, cases of strangulation generally are seen in the first stage of simple obstruction. Strangulation is the result of the excess of blood entering the tumor in consequence of the greater compressibility of the veins, and the *vis a tergo* within the arteries. The latter is amazingly increased by the pains, and this is terribly aggravated by the too prolonged, and otherwise injudicious, use of the taxis.

After one intelligent trial of manual reduction, the patient—an adult suffering from any recognized form of hernia—should have a third of a grain of morphine sulph., or sixty drops tr. opii., and be anesthetized. The anodyne is given in advance, so as to be in operation whether taxis succeed or not, by the time it shall be needed. If the hernia cannot be returned after the circulation has been calmed by full anesthesia, there will probably be no immediate necessity for the knife, unless circumstances prevent the patient's being watched.

The history of most cases of obstruction reveals the fact of a previous increase of peristaltic action and quickening of the circulation. I ought, however, to except recent hernias, painful from the beginning. In obstruction and threatened strangulation thus preceded, taxis will often succeed at the end of forty-eight hours of full use of opiates with or without anesthetics, which resisted it at the first. Perhaps the protrusion may disappear spontaneously. But if a patient is fully alive to pain, is punched and squeezed upon a tender hernia for a few hours, this hernia will surely become strangulated; and strangulation means the knife or death, perchance both.

I have several times had the great pleasure of avoiding an operation, or enabled my friends to avoid it, by following this simple plan, I was led to it by the misfortune of having an old and obstructed inguinal hernia where the stricture was in the sac, slip through my fingers unrelieved into the abdomen. I was called upon to relieve the obstruction either by opiates to incipient necrosis or by a median abdominal incision and a division of the stricture from within. The tumor could be plainly felt through the abdominal walls. The opiate treatment succeeded in the end, but the time was long—seven or eight days—during which every attempt to diminish the anodyne was followed by aggravated pains, and considerable nausea. At the end of that anxious period, however, the

tumor softened. I will take the liberty of saying that this patient whom I have never seen professionally since my bout with his rupture, died this summer of strangulated hernia. I left him after the hernia came down, with a well-fitted truss. But trusses don't last long with those who prespire freely. I know this, for I fit not less than 100 annually.

Yours truly,

FOREIGN BODIES IN ALIMENTARY CANAL.

MUSKOGEE, LOUISIANA, Dec. 17, 1879.

DEAR SIR:—In your excellent journal, on page 655, I find reported a case of death from swallowing a half-penny. I have had several cases where buttons, one cent pieces, five cent nickels, a large sized two cent piece, a carriage button (large at both extremities, and smaller in the middle), a peach pit, &c., had been swallowed. I have always recommended my patients to eat freely of dry food, to take but little drink with the food, or soon thereafter, to keep about the same as usual, and not to take any physic, in hopes that the foreign body would become incorporated with the feces and be expelled with them. I have had the best of results so far.

As my mode of treatment has been the reverse of that recommended in the article mentioned. I have written this in order that those of larger experience may give the results of their practice, in hopes that the better or best mode of treatment may be determined, for judging from my practice this class of cases must be quite numerous.

Yours respectfully,

H. M. DEAN, M.D.

AN INTERESTING, THOUGH OBSCURE CASE.

PORTSMOUTH, R. I., Dec. 20, 1879.

To the Editor of THE MEDICAL GAZETTE:

DEAR SIR:—I herewith send you the history of a case which recently occurred in my practice and if you deem it of sufficient interest, please give it a place in your columns, and oblige,

Yours truly,

D. E. CONE, M.D.

On the 20th October of the current year I was summoned by telegraph to the interior of the State of New York to attend a former patient of mine now residing there. Her history is briefly as follows: Mrs. K., American, age 34, married, the mother of four children, the eldest eight years, the youngest thirteen months old. She is rather anæmic, and has suffered considerably from malarial infection, contracted eight years ago. I arrived on the afternoon of the 21st and learned from her the following facts in the case.

She had been moving and working very hard to get her house in order.

Her menstrual periods had been very irregular during the summer and to Oct. 14th she had been eight weeks without them, but had not considered herself pregnant.

On the above date, viz., 14th, she was driving a team, no one accompanying except her little boy, when she came suddenly upon the cars and the horses being very spirited she was terribly frightened; during that night she was attacked with severe labor-pains and after a time hemorrhage with all the accompaniments of a miscarriage. From this she seemed to get along very well until the 17th when she was again very badly frightened by some persons around the house.

She was extremely nervous and could not sleep, although suffering in no other way. She endured this state of affairs until the 10th, when she said she must have sleep. She had been sitting up an hour or so each day for two or three days and said her food was very much reduced.

She sent to a physician near by whom I knew, Dr. G., for some hyalate chloral, she having taken it several times before. He gave her some, and she wanted the messenger to tell Dr. G. that she could not take opium in any form, as she had a very strong idiosyncrasy against it. Accordingly the messenger went and after delivering the message returned.

The messenger, who waited for a full hour when the doctor gave him a small bottle with directions to take a teaspoonful every two hours till sleep was produced, accompanying the directions with the remark "I thought I hadn't any chloral, but I rummaged around and found a little." The dose was taken as directed with the addition of a little brandy and water; after taking this she remarked to the lady with her "that has a very strange taste for chloral," and requested her to taste it, which she did. The patient says that in a very few minutes after taking the medicine it seemed as if she were on fire.

Another dose was taken at the proper time, which produced no other effect except to increase the effect produced by the first dose. After the lapse of two hours a third dose was administered, no feeling of sleepiness or anything approaching it having been produced.

Almost immediately she complained of great distress for breath, a feeling of approaching dissolution, dimness and perversion of vision, things appearing very much distorted and enlarged. Violent vomiting supervened when any thing was taken into the stomach, but consisted of nothing more than the article taken, accompanied with a little mucus.

Yet she seems to have been conscious of passing events. Dr. G. was immediately summoned, but could not come on account of his own sickness. After nearly two hours a physician was obtained, who seems to have made rather a superficial examination of the case. He told Mrs. K. it was undoubtedly an overdose of chloral. That he had always regarded it as a poison and never gave it, and also that there was no antidote for it, but the effect would soon wear away and in a few hours she would be better. He gave her bromide sodium and tr. aconite and left her in a few moments, with the promise to call again the next evening. This was about 2 A. M. She grew still worse and about 5 A. M. the physician who visited her, and whom I will call Dr. A., was again summoned. Dr. G. accompanied him. Dr. A. stated his view of the case to Dr. G., who said it could not be possible, as the solution he sent was a very weak one. At the same time, however, they took the bottle containing the medicine, with the remark, "she will want no more of this," emptied it and filled it with valerian and cannabis indica, which they gave in addition to the remedies of the night before.

This is the history of the patient as I learned it from her lips, with the exception of the treatment, which I learned from Dr. A. subsequently.

I found her in a low condition, and, although she revived considerably after my arrival, yet talked with difficulty.

She was slightly jaundiced, pale, and the superficial veins stood out prominently and very dark in color. The pupil of the eye was slightly dilated and she still complained that things did not appear natural to her. Pulse 116 and weak yet full. Respirations 28, often sighing. No desire for food. No pain and no delirium. The lips were considerably

swollen and upon examination the entire cavity of the mouth and fauces presented the appearance of having been cauterized and she stated that since the morning of the 20th it felt as if burned with some hot drink. The bowels were very regular and natural in character.

The urine was voided frequently, although not more than the normal quantity was passed in the 24 hours. It had a disagreeable odor and a dark brown color, but there was no sediment on standing. I could not make an analysis, as I was 400 miles from home and the necessary apparatus was not obtainable. The night of the 21st was passed in rather a restless manner, with no refreshing sleep.

Oct. 22nd.—Her pulse being 108 and skin hot and dry, I gave her tr. aconite and tr. belladonna. In addition I gave her dextro quinine, with irisin and podophyllin; also one teaspoonful of brandy in a cup of milk, three times per day.

During the day the cauterized mucous membrane of the mouth and fauces commenced to be detached in shreds and patches, leaving the underlying tissues of a smooth, shining red color and quite tender.

This occasioned a great deal of discomfort and to relieve this I gave a wash of carbolic acid and rose water.

She sat up about an hour in the afternoon and said she felt much better for it. The vaginal discharges seemed very natural and were not at all so profuse as to produce debility.

At night she was very restless and complained bitterly of want of sleep, and at last to such a degree, that I decided to, and did, give her 10 grs. chloral hydrate, with 13 brandy and sugar and water.

Immediately she remarked "that is the first chloral I have had."

In about twenty minutes she was in a calm, refreshing slumber and though I had to arouse her every two hours and administer milk punch (that is 13 brandy to $\frac{1}{2}$ cup of milk,) to support the system, she would relapse into sleep almost immediately and rested nicely till 5:30 A. M. This was the first sleep in six days that seemed to give any rest.

Oct. 23rd.—Expresses herself as much better and also a desire to sit up, which is denied her until 11 A. M., when, without the slightest exertion on her part, she was placed in a semi-recumbent posture in an easy chair and moved very carefully into another room, that the one she occupied might be properly aired.

She partook of her milk punch and seemed to bear the moving well, when suddenly she said, "How queer everything looks to me." (This was about 15 minutes after taking the punch.) She was immediately placed in the recumbent posture and friction, with the internal administration of brandy resorted to. The hands and feet became of a cold, clammy feeling and with the Hippocratic countenance indicated speedy dissolution. But by the most prompt and strenuous efforts, with the friction and brandy, the vital spark was stayed and gradually the breath grew deeper, the pulse quickened and a gentle warmth began to spread over the body. The duration of this state was nearly two hours. She complained for six hours afterwards of a pricking sensation all over the body, but greater in the upper and lower extremities.

I called in consultation Dr. B., an old and valued friend of mine, and he stated that in a large practice of more than thirty years, "he had never seen anything like it."

She was given quinine, tr. nux. vom. and podophyllin every four hours and every two hours one gill of milk, with 13 of brandy. She rested quite well during the night, sleep being procured by gentle friction over the body, but more particularly by what might

be called draining of the extremities, viz., passing the hand gently, but firmly, towards the body, thus accelerating the passage of the blood through the superficial veins and producing a very soothing effect upon the entire system.

Oct. 24th.—Is slightly improved, but cannot bear the slightest noise; takes but very little nourishment and complains of her head if she tries to talk; a sense of fullness and distress. Had a slight attack of blindness in the afternoon and was fearful of a recurrence of yesterday's experience, but it rapidly passed away under the influence of the brandy with friction.

Oct. 25th.—Rested well during the night and partakes of a little more nourishment this morning.

Exhibited some symptoms of angina pectoris, an affection to which she has been subject for two years, but which readily yielded to cactus grandiflorus.

The treatment was changed during the day to comp. tr. cinchona, with ammon. cit. ferri and beef essence added to bill of fare.

After this she slowly recovered until I left, Nov. 10th, when she was able to sit three hours at a time, had a good appetite and could walk a few steps with support, but still complained of head symptoms, though in a less degree.

The points in the case seem to me to be these:

1st. Previous to taking the medicine, Oct. 10th, she had experienced no difficulty other than debility from the miscarriage (which could not have been so very great, because she was able to sit up), and sleeplessness due to fright.

2nd. The violence of the symptoms immediately after taking the doses as narrated and the duration of this condition.

3rd. The state of the mucous membrane of the mouth and fauces and also the swooning condition four days after, and here I will state that at no time was consciousness wholly lost.

The patient described it as "coming like a streak of lightning except its color was blue and then she began to sink gradually until it seemed to her she had almost crossed the river of death when she was slowly brought back to life. After this nearly all the vaginal discharges ceased and did not reappear for nearly a week when she had some leucorrhœa to which she has long been subject. The urine continued to be passed frequently and of the peculiar color and odor until the 26th inst., when it began to look more natural and there was not so frequent a desire to empty the bladder. The perspirations were very profuse during sleep up to the 28th inst. and had a fetid odor as of decayed animal matter. Now the question, what was the cause of these symptoms? Was it a poison she took for chloral or was it the state she was in at the time?

I am inclined to think both.

The physician who sent the medicine, Dr. G., says it was 10 grs. hydrate chloral in 2 $\frac{3}{4}$ water. Of course due credence must be given him. He denies the possibility of a mistake for he "opened a new bottle, smelled of it, weighed out 10 grs. and put it in 2 $\frac{3}{4}$ water. "Thought he would send something that would do no harm, etc."

Now I am not writing this article for the purpose of censuring Dr. G., for what he did was undoubtedly meant in all kindness, but I cannot help thinking that he made a mistake. Why was the bottle emptied when the nurse went for another?

Why if he had a new bottle of chloral did it take him so long to prepare it and why tell the messenger he thought he "hadn't any, but rummaged around and finally found a little?"

Dr. A. and Dr. G. both claim not to have noticed anything peculiar about the condition of the mucous membrane of the mouth and fauces, although the patient had complained of the feeling "as if her mouth were burned" Oct. 20th, and Dr. G. remarked to her "you have a very bad looking tongue, and no doubt ought to have taken physic long ago."

As I said before, I am not writing to censure either the men or their treatment, but simply to state facts. What I particularly would like to know is.

1st. What could the medicine have been that he sent her to be both so prompt and so energetic, as well as permanent in its effects?

2nd. If it was the state arising from the miscarriage (?) will some one explain the causes and conditions that produced it (and not due to the medicine.)

SELECTIONS FROM JOURNALS.

JENNER ON THE TREATMENT OF TYPHOID FEVER.*

One great value which this address possesses is, that Sir William Jenner has never before written a line on the treatment of typhoid fever, notwithstanding his many and valued contributions to the etiology and pathology of the disease. In the commencement of his remarks, Sir William asserts the impossibility of cutting short a case of typhoid fever by means of treatment. In treating cases it must be borne in mind, first, that the disease, in the majority of cases at least, is produced by the action of a small portion of the excreta from the bowels of a person suffering from typhoid fever; that air from a drain, or air blowing over dried feculent matter, may convey the poison to the patient, or his own fingers may carry it to his mouth, or that the vehicle for the poison may be a fluid—for example, milk or water; and, that the poisonous properties of the excreta may be destroyed by boiling the fluid in which they are contained, though not by filtering the fluid; secondly, that the natural duration of a well-developed case of typhoid fever is from twenty-eight to thirty days. By self-treatment, in the earliest stages of typhoid fever, the patient is prone to do himself great mischief, either by taking violent exercise, strong stimulants, or drastic medicines, according to his fancy. Many of the worst cases have appeared to owe their gravity to exercise taken at a time when the nervous system could ill afford any strain, and hence no typhoid fever case ought to be removed to a great distance if away from home. The diet should be liquids, with farinaceous food and bread in some form, if wished; broths with vegetable juices, strained fruit-juices, avoiding grapes on account of skins and seeds. Milk must be used with caution. If the curd be undigested great evils arise, and the patient is placed in jeopardy. "Do not forget that a pint of milk contains as much solid animal matter as a full-sized mutton chop. What typhoid fever patient can digest two to four mutton chops *per diem*? A patient is weak from the fever and not from lack of food. Pure water may be given *ad libitum*. If the bowels be confined, use simple enemata. Small doses of mineral acids are grateful and perhaps beneficial. Thus, the fever is to be met by rest, quiet, fresh air, mixed liquid food and blood diluents, and by the exclusion of fresh doses of poison; the intestinal lesion, by the careful exclusion from the diet of all hard and irritating substances, and the removal from the bowels of any local irri-

tant. Headache may be alleviated by either hot or cold applications, and ceases spontaneously in about ten days. Sleeplessness, also, generally disappears in the second week; still, if it be persistent, henbane, bromide of potassium, and chloral are valuable, alone or combined. With high temperature, a tepid bath or sponging the surface will often induce sleep. Opiates are to be avoided. No treatment can arrest or limit the specific changes in the intestinal glands; but over the diarrhoea, which usually accompanies these changes, we can, in many cases, exercise a decided influence by careful attention to diet as above directed, and avoidance of accumulation of undigested food. So long as not more than three to five actions occur in twenty-four hours, the looseness is rather advantageous. If the stools be found to consist of curdled milk the remedy is obvious; if too alkaline, dilute sulphuric acid sometimes affords marked relief; if very offensive, impalpable animal charcoal frequently acts as a charm. Sometimes constipation is present, with an extensive ulceration of the ileum; then, small-sized enemata of thin gruel every other day, are safer than large quantities less frequently. The most important and not unfrequent cause of inaction of the bowel in typhoid fever is deep ulceration of one or more Peyer's patches. Large superficial ulcers favor diarrhoea; a single small deep ulcer will paralyze the action of the bowel, a most important point to bear in mind. This state of things, too, is frequently the cause of excessive tympanites, between the third and fourth weeks of the fever. Of all remedies, turpentine externally is most generally used at these times; but, in no case can Sir William Jenner say he has seen a diminution of the distension which seemed to be *propter hoc*. Charcoal to relieve foetor, pepsin to promote digestion, alcohol in fit doses to improve nerve energy and so to increase the muscular power of the bowel, are each and all valuable in turn. A long tube passed up the bowel will often be the means of discharging large quantities of flatus. In intestinal hemorrhage, if it be ever so small, the patient must be kept recumbent, and not allowed to make any effort when using the close pan. If he be unable to pass urine when recumbent, the catheter must be used. Starch enemata with ten to fifteen drops of laudanum at once and acetate of lead with three to five drops of laudanum every two or three hours by the mouth, or gallic acid and iced water, are to be administered. It is highly requisite to keep the bowels empty, and, therefore, give essence of meat alone, and no milk. If the hemorrhage be sudden, copious, and repeated, ergotine subcutaneously, with an ice-bag over the ileum, may be employed. The faintness due to hemorrhage must not be removed by stimulants. Perforation is always fatal, in Sir William's experience. The value of treatment by cold baths has not carried conviction to the lecturer's mind. Both quinine and salicylate of soda, employed to reduce high temperatures, have caused disappointment. Free action of the skin is often attended with great relief, and nothing assists this action so readily as a large warm and moist flannel, covered with oiled silk, applied over the abdomen and chest, combined with the administration of warm bland fluids. When, as in the latter stages, the perspiration is profuse and exhausting, the patient must be lightly clothed and his skin wiped every few minutes, if necessary, with a warm napkin, and dry clothes placed between the wet linen and the skin. Alcohol must be given carefully to increase nerve-force, and sponging with tepid vinegar and water is sometimes of much service. To avert death

from failure of the heart's power, alcohol is the great remedy. Delirium, due to fever, is never conjoined with headache; headache in typhoid fever may be most intense, delirium most violent, but the headache ceases before the delirium begins; if conjoined, we must look for that rare complication—intracranial inflammation. Alcohol is, as a rule, the remedy for delirium, but must be used with caution; seldom need more than twelve ounces of brandy be given in twenty-four hours to meet all the demands upon alcohol, and, if there be a doubt as to quantity, it is better, in typhoid fever, to give the minimum amount the benefit rather than the maximum; the reverse holding good in typhus fever. Tremor is sometimes excessive; in such cases it is almost always a symptom of deep intestinal ulceration. A small deep slough will be accompanied with great tremor; a large extent of superficial ulceration may be unattended by symptoms. Sir William Jenner concludes his most instructive address in these words: "While admitting without reserve that heroic measures, fearlessly but judiciously employed, will save life when less potent means are useless, the physician whose experience reaches over many years will, on looking back, discover that year by year he has seen fewer cases requiring heroic remedies, and more cases in which, the unaided powers of nature alone, suffice for effecting cure; that year by year he has learned to regard with greater diffidence his own powers, and to trust with greater confidence in those of nature."—*Lond. Med. Rec.*

TIGGES ON THE DIFFERENCE OF TEMPERATURE BETWEEN THE TWO SIDES OF THE BODY.

A girl, aged 20, had an attack of mania for one month, followed by one of melancholia for five months. After being rational for a fortnight, a fresh attack of depression set in, accompanied by the following symptoms: various painful sensations in all parts of the body, most marked upon the left side; motor disturbances, first in the legs and later in the arms, taking the form of quivering, then clonic spasm, and eventually tonic contractions; very frequent and shallow respiration, alternating with an occasional deep breath; as many as 120, 160, and 180 (!) respirations per minute were sometimes counted; a dry nervous cough was also present. These motor symptoms only occurred at intervals, and were absent during sleep. Increased redness of surface, with elevation of temperature, either confined to one side of the body, or greater upon one side than on the other, was almost constantly present in some degree. This was first observed in the face, and extended afterwards to the arms and then to the legs, intervals of several days intervening before each extension of area. The secretion of sweat was always more active in the warmer limb. Under the administration of chloral, the redness of the face diminished somewhat, but passed from the left to the right side. The maximum excess of the left axillary temperature over the right reached nearly three and a half degrees Fahr., while the difference between the hands, when wrapped up, was sometimes four or five times greater than this. The popliteal temperature was always greater upon the right side, the maximum excess reaching 4.6°. On two occasions the cavity of the mouth was found to be warmer upon the left side than upon the right, once by more than 1 deg. Fahr. After the melancholia had lasted three months, mania again followed for four months, at the end of which time the patient appeared convalescent, only a slight inequality of the papils remaining. This

* On the Treatment of Typhoid Fever. An Address delivered before the Birmingham Medical Institute (*Lancet* Nov. 1874, p. 715).

the chief of these were the application of the cautery, and the use of the spinal cord, including the medulla. The beneficial effect of issues placed over it, favor this view, though the proofs must be sought

the area of distribution of the fifth nerve; therefore its origin in the medulla must be regarded as the upper boundary of the lesion.

of the lumbar and cervical enlargements of the cord, and also of the facial nerve at its origin. The origin of the vagus in the medulla is also regarded as the

seat of the disturbances of respiration, and of the symptoms were distributed throughout the body, their origin must have been central, i.e., in the spinal cord, up to and including the medulla.

This case differs materially from the differences of temperature between the two sides were much greater, of greater area, and longer duration; the abnormal redness and

symptoms, while in Ripping's they were only accidentally discovered. In this case, increased vascularity was accompanied by increase of perspiration. The reverse was the case in Ripping's patients; the vaso-motor symptoms in them were not developed side by side with motor and sensory disturbances. Most important of all, the lesion was considered by Ripping to be in the cortex or medullary substance of the cerebrum, whereas Tigges does not look for it any higher than

LE DENTU ON INJECTIONS OF CHLORIDE OF ZINC IN RANULA.

For some years past M. Le Dentu has studied and endeavored to determine the indications for, and the method of, operation in treating ranula by injections of chloride of zinc. Three years ago he was deputed to make a report on this plan, as recommended by Théophile Anger for ranula and hygroma. The method appeared to him to be excellent for the latter affection, but less adapted to the former, in consequence of the violence of the inflammation it might bring on. It is with the object of avoiding this complication that M. Le Dentu has endeavored to exactly determine the conditions under which this operation should be performed. The solution employed is the deliquescent chloride of zinc, which is transparent in its upper strata, and turbid at the bottom of the vessel. The instrument used is a syringe of gutta-percha, which cannot be injured by the liquid. The injection also is very easily made. The canula should be introduced to a certain depth. Immediately a sensation of heat is produced, which soon irradiates and spreads throughout the mouth. The syringe is removed, and a small white spot is seen at the point of puncture. The quantity of liquid injected should never exceed two drops, and should some-

sensation extends to the side of the face, and is replaced by neuralgic pains. It may also take on the character of inflammatory pain,

there are respiratory troubles, which proves that the œdema may extend to the opening of the larynx. The swelling takes two or three days to attain its maximum, and may then be of considerable proportions. At this crisis the patient may suffer positive anguish, but after the third day only a small amount of inflammatory induration at the level of the ranula remains. The swelling, which still persists, disappears gradually, and the original tumor disappears completely. These are the principal phenomena noted after operation. M. Le Dentu has performed it six times under the following conditions.

The first patient was a woman having a tense elastic but depressible ranula. Two drops of chloride of zinc were injected into the tumor, and the result was a very acute and even alarming reaction, causing apprehension of some complication. However, none occurred, and the patient was radically cured. In the second case the patient had already been operated on, and the tumor had again made its appearance. One drop and a half injected into the ranula, which was small, did not induce any reaction, but only a little pain and swelling of the region. Cure in this case also was complete. In another case a woman, aged twenty-two, had a very full and tense tumor. With two drops of chloride of zinc the reaction was extreme; dysphagia and even dyspnoea were produced. Nevertheless, cure was effected, as in the other cases. A ranula developed itself in a girl, aged ten, and opened itself every week by the same orifice. A drop and a half brought on only an ordinary reaction, such as is desired in all cases, and was followed by a cure in ten days. Finally, in two cases in which small ranulae were present, half a drop only was injected. A small unimportant sphacelus was produced, which in no way hindered the cure. From his observation, M. Le Dentu concludes that the injection of chloride of zinc into the ranula constitutes an almost infallible method of cure, but of which the handling exacts certain important precautions. The reaction in fact is variable, according to the cases, and probably has reference to the previous condition of the sac. The tension of this sac appears to have a great deal of influence on this result, and in the cases in which it was very pronounced reaction has been the most marked, so that it may be questioned whether it is not indicated to relax the sac, by previously removing a certain quantity of the liquid contained in it. It is equally important to define the quantity of chloride of zinc to be used for the injection. A drop or half a drop is sufficient for small ranulae. In tumors of a medium size a drop and a half, and in fully developed ranulae two drops are the maximum, which should never be exceeded. In children especially only very small doses should be used, because the serious phenomena of reaction are more to be feared than in adults.—*Lond. Med. Rec.*

TRANSFUSION OF BLOOD.

Mr. E. A. Schafer read a report before the Obstetrical Soc. of London on an experimental inquiry into the methods of transfusion. He had first tried to ascertain if any other fluid than blood, as milk for instance, could be substituted advantageously. Experiments under this head showed that rabbits generally died within twenty-four hours when ordinary milk was injected into their veins. Milk just drawn from the cow into a heated vessel, and milk which had been boiled were, however, innocuous. In animals reduced to an almost lifeless condition, the injection of milk into the blood-vessels was never permanently beneficial. Such animals always died. These results confirmed those of

Howse and Dupuy in America. No fluid lacking hæmoglobin was of benefit in case of acute anæmia. The transfusion of the blood of other animals into the human subject was negated by the microscopical examination of human blood mixed with that of the lower animals. The red corpuscles of one or both kinds of blood quickly became dissolved. The amoeboid movements in the white corpuscles quickly ceased, and the corpuscles perished. The blood or serum of the lower animals was, in fact, an active poison to the human blood-corpuscles. In man, human blood only could be used with advantage for transfusion. Numerous experiments in arterial transfusion were made on cats and dogs. The animals were first depleted of blood until the arterial pressure was almost zero; the femoral artery was connected by means of a glass canula and India-rubber tube, filled with solution of carbonate of soda, with the artery of another animal. The result in every case was recovery of the depleted animal. A flow of one minute's duration usually sufficed to restore the patient. There was no danger of the flow being excessive, for the pressure in the arterial system of the recipient soon equalled that of the donor. The ordinary risks of transfusion, such as the introduction of air or clots into the veins, and phlebitis, were absent from this operation. The apparatus was simple, and the blood was at once introduced where it was most useful, namely, in the arterial system. In the human subject, the dorsal artery of the foot, both as a recipient and as donor, was recommended. As regards vein-to-vein transfusion, it was both easy and rapid in its effect. The simple glass canula and India-rubber tube constituted the apparatus. The intervention of an elastic pump, as in Aveling's apparatus, did not accelerate the flow, but sometimes stopped it by sucking in the wall of the vein. The following advice was offered as the results of these experiments. 1. Fluids other than human blood should never be used for transfusion in cases of hæmorrhage. 2. Transfusion should always, if possible, be effected through a simple flexible tube with glass canulæ. 3. Direct centripetal arterial transfusion should, if possible, be employed; in default of this, direct venous transfusion is the best. 4. If it be impossible to perform either direct arterial or venous transfusion, mediate transfusion or whipped or unwhipped blood collected into a funnel and allowed to flow through an India-rubber tube and glass canula into a vein can be tried. It involves, however, risk of the introduction of clots and germs of putrefactive bacteria into the vascular system of the patient.—*Brit. Med. Jour.*

Anuria.—In the *Union Médicale* for November 4, Dr. Dubuc relates a case of anuria in which the patient lived for seventeen days without having expelled a single drop of urine. He died on the seventeenth day with symptoms of uremic intoxication, but no autopsy was permitted.

Reverdin's Mixture for Blennorrhagia.—Dr. Jacques Reverdin, of Geneva, prescribes the following mixture at the outset of acute blennorrhagia. It modifies very advantageously the nature of the urine, and is well tolerated by the patient:—Pounded sugar, 100 grammes; bicarbonate of soda, 20 grammes; benzoic acid, 6 grammes; essence of lemon, a sufficiency. A teaspoonful to be taken six times a day in a tumbler of water. To be continued until the discharge being altered in character, injections and balsams are prescribed.

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